TEXTILE WORLD

A McGraw-Hill Publication ..... APRIL • 1952

RTICLES IN THIS SSUE DISCUSS:

But Is It Progress?" 4
nual Knitting Section 105
e You're Going Into Tricot? . . 106
Single-Head F.F. Machines . . . 108
Two-Bar Tricot Production . . . 109
How Drexel Knits Argyle Socks . . 110
Workloads in Tubular Knitting . . 111
Tricot-Dyeing Methods 112
Seven F.F. Knitting Pointers . . 114
Checklist for Tricot Knitters . . 116
Hosiery Conveyor 118
siery Manufacturers' Conference . 119
—New Spinning Frame . . . 120
ndicapped Persons Pay Off . . . 125
at to Expect From Orlon Staple . 126
ed Fabric Coating 129
educe Your Shuttle-Fur Costs . . 130
rk Trucks Cut Handling Costs . . 132
luable Mill-Operating Tips . . . 135
nveyors Speed Sewing, Shipping . 136
per-Finisher Joins TW Staff . . . 138
ality Drawing Sliver 139
oisture-Control Maintenance . . 140
C. State—Insurance for Future . 142
attery-Filler Trucks 147
oom-Motor Maintenance 151
Power-Circuit Maintenance . . . 153
hat Causes Pump Failure? . . . 157

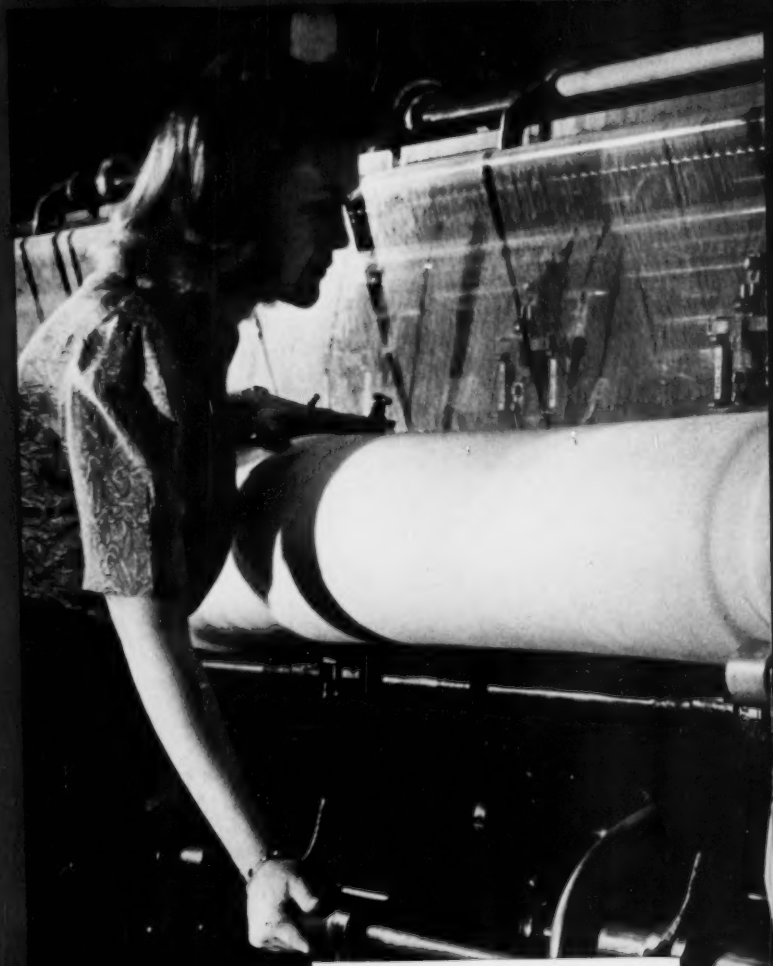
Guide to Knitting and Allied Crafts Exposition

(Starts on page 213)

PRICE 50 CENTS PER COPY

INTERNATIONAL EDITION

Complete U.S. Edition With Spanish, French, and German Translations in Back



Annual **KNITTING** *Number*

SEE PAGE 105

Where the growing is easier

One of the country's major distributors of textiles, the United Merchants and Manufacturers, Inc., has just completed their latest plant in the South. United's new synthetic textile plant, located in Clarkesville, Georgia, and now in operation, provides 160,000 square feet of space, housing the industry's most modern machinery.

Robert and Company Associates served as architects and engineers on the Clarkesville, Georgia, plant and other modern installations for United Merchants and Manufacturers, Inc., in the South.

In textiles, as in virtually every field, Robert and Company has had over 35 years of engineering experience in the South. Our services are complete — from the selection of the site, preliminary sketches, estimates, selection of qualified contractors, building designs, and construction supervision—to the completion of the project.

SERVING MANY OF AMERICA'S GREAT TEXTILE NAMES

Alabama Mills • American Bemberg Corporation
Chicopee Manufacturing Co. • Cluett, Peabody & Co., Inc.
Crompton & Co. • Crystal Springs Bleachery
Davenport Hosiery Mills • Dixie Mercerizing Co.
Goodyear Tire and Rubber Co. • Marshall Field and Co.
Mt. Vernon-Woodberry Mills, Inc. • Muscogee Manufacturing Co.
Peerless Woolen Mills • Pepperell Mfg. Co.
Standard-Coosa-Thatcher • Swift Spinning Mills
The B. F. Goodrich Co. • The Springs Cotton Mills
Thomaston Mills • West Point Manufacturing Co.
United Merchants & Manufacturers, Inc.

TEXTILE PLANTS

INDUSTRIAL PLANTS
MUNICIPAL PLANNING
AIR CONDITIONING
POWER PLANTS
MACHINERY & EQUIPMENT LAYOUTS

ROBERT AND COMPANY ASSOCIATES

Architects and Engineers

ATLANTA

SEE YOUR SITES IN THE SOUTH

TEXTILE WORLD, Vol. 102, No. 4, April, 1952. Published monthly McGraw-Hill Publishing Co., Inc. (Bragdon Lord & Nagle Division). Publication Office, 99-129 North Broadway, Albany, N. Y. Editorial and Executive Office, 330 W. 42nd Street, New York 36, N. Y.
Subscriptions: Address correspondence to TEXTILE WORLD—Subscription Service, 330 West 42nd Street, New York 36, N. Y. Allow ten days for change of address.
Subscriptions are solicited only from executives, engineers, and technicians in textile manufacturing or finishing plants. Position and company connection must be indicated on subscription orders.
Subscription: United States and possessions, $2.00 a year, $3.00 for two years, $4.00 for three years. Canada, $3.00 for one year, $5.00 for two years, $6.00 for three years. Other Western Hemisphere, $10.00 for one year, $16.00 for two years, $20.00 for three years. All other countries $15.00 for one year, $25.00 for two years, $30.00 for three years. Entered as second class matter August 29, 1936, at Post Office, Albany, N. Y., under the act of March 3, 1879. Printed in U.S.A. Thirty-five cents per copy.

For FURTHER PROOF OF X-2 EFFICIENCY...

Report of: W. M. Baldwin
Week ending: 2/7/52

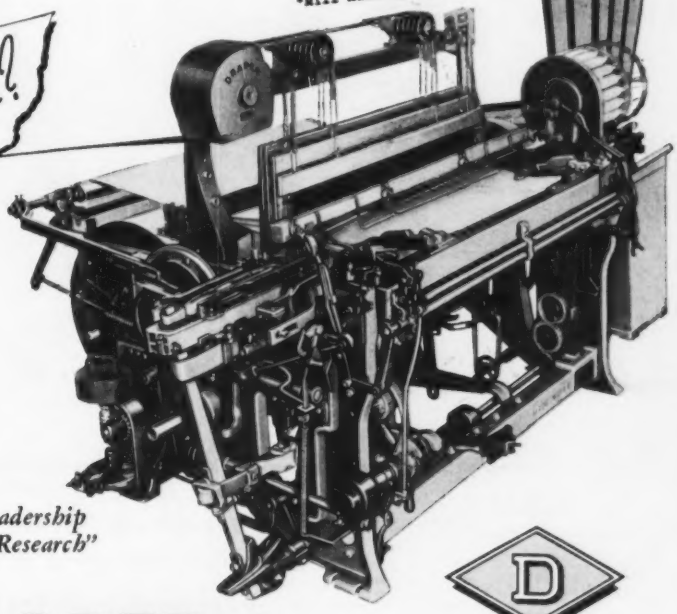
_____Mills*

They certainly are doing a swell job here on the X-2 Model looms; construction 44x40 sheeting, efficiency 96%, seconds 3%, looms per fixer 96, looms per weaver 96, and loom speed 196 P.F.M.

When I was in the weave room, Mr. _____ pointed out two weavers that were sitting on a box with all looms running.

*Will name upon request.

Need we say more?



"Retaining Leadership through Research"

DRAPER *Corporation*

ATLANTA, GA. HOPEDALE, MASS. SPARTANBURG, S. C.

THE WORLD'S LARGEST MANUFACTURER OF AUTOMATIC LOOMS

durable re-treatable

Warwick Chemical Company, makers of the World's No. 1 Water Repellents, Norane and Impregnole, announce an outstanding development in fabric finishing . . . offering new convenience and efficiency for mills and converters . . . and increased sales advantages for manufacturers and retailers.

noraset

U. S. Patent Applied for— T.M. Applied for

a new series of versatile fabric finishing resins

completely new hydrophobic resins (*not* mixtures of water repellents and resins) which impart

DURABLE: WATER REPELLENCY ● CREASE RESISTANCE ● SPOT AND STAIN RESISTANCE ● SHRINK RESISTANCE

in a single product, for the first time!

WARWICK CHEMICAL COMPANY, DIVISION

10th Street and 44th Avenue, Long Island City, New York

Antilustrole* dullers • Appramine* cationic softeners • Appretole* anionic softeners • Eumercin* mercerizing assistants • Formaset* textile resins Lanole* tar and grease removers • Organosol coatings for textiles and paper Plastisol for coating and molding • Setole* textile resins • Sulfanole* synthetic detergents • Suntone* pigment printing colors for textiles and plastics Warcofix* color fixatives • Warco* GFI gas fading inhibitor • Warcolene* finishing oils • Warconyl* fire retardants • Warcosan* wetting and rewetting agents • Warcosol* penetrants • Weave-Lok* non-slip finish.

For more information, write direct or use Reader Service post card.

TEXTILE WORLD

PUBLISHED MONTHLY

A McGraw-Hill Publication

Edwin D. Fowle . . . *Publisher*
Prentice M. Thomas . . . . . *Editor-in-Chief (Greenville, S. C.)*
William A. Newell *Managing Editor (New York)*

Greenville (S. C.) Staff
James H. Kennedy . . . . . *Southern Editor*
Richard B. Pressley . . . . . *Assistant Editor*

New York Staff
Richard C. Scott . . . . . *New York Editor*
George M. Moisson . . . . . *Assistant Editor*
Louise E. Wilie . . . . . *Editorial Assistant*
Robert McK. Fink . . . . . *Art Director*

E. H. Helliwell . . *Contributing Editor (Salem, Mass.)*
H. S. Knowlton . . . . *Contributing Editor (Boston)*
Russell F. Anderson . . . . . *World News Director*
George B. Bryant, Jr. . . . *Chief, Washington Bureau*
Dexter Keezer . . . . . *Economic Director*

Consulting Editors
C. Norris Rabold . . . . . *Finishing*
Francois E. Cleyn . . . . . *Worsted Spinning*
Gustav Zellnik . . . . . *Woolen Spinning*
Henry D. Grimes . . . . . *Wool Chemistry*
Eugene P. Schremp . . . . . *Weaving*
W. C. Westbrook . . . . . *Weaving*
R. P. Shepard, Jr. . . . . *Knitting*
H. B. LeFeaux . . . . . *Knitting*

William Buxman . . . *Manager*
W. B. Dall . . . . . *Assistant to Manager*

PUBLICATION OFFICE: 99 N. B'way, Albany 1, N. Y.
EDITORIAL AND EXECUTIVE OFFICES, 330 W. 42nd Street, New York 36, N. Y., 201 E. Coffee St., Greenville, S. C.
JAMES H. McGRAW, (1860-1948), Founder.
CURTIS W. McGRAW, President.
WILLARD CHEVALIER, Executive Vice President.
HENRY G. LORD, Vice President.
JOSEPH A. GERARDI, Vice President and Treasurer.
JOHN J. COOKE, Secretary.
PAUL MONTGOMERY, Senior Vice President, Publications Division.
RALPH B. SMITH, Editorial Director.
NELSON BOND, Vice President and Director of Advertising.
J. E. BLACKBURN, JR., Vice President and Director of Circulation.
DISTRICT OFFICES:
BOSTON 16, Ralph L. Chisholm, Dist. Mgr., 1427 Statler Building.
CHICAGO 11, M. C. MacKenzie, Dist. Mgr., 520 North Michigan Ave.
NEW YORK 36, Arch W. Fisher, Dist. Mgr., 330 West 42nd St.
John C. White, Jr., Dist. Mgr., 330 W. 42nd St.
PHILADELPHIA 3, H. C. Harvey, Dist. Mgr., Architects Building, 17th and Ranson Sts.
CLEVELAND 15, John G. Sabella, Dist. Mgr., 1510 Hanna Building.
GREENVILLE, S. C., and TRYON, N. C., Wm. G. Ashmore, Dist. Mgr., 201 E. Coffee St., Greenville, S. C., or P. O. Box 1337, Tryon, N. C.
WASHINGTON 4, National Press Building.
OTHER OFFICES: Atlanta 3; Dallas 1; Detroit 26; Los Angeles 14; St. Louis 8; Pittsburgh 22; San Francisco 4; London W.C. 2; Paris 7; Frankfurt; Rio de Janeiro; Buenos Aires; Mexico City; Manila; Tokyo; Bombay; Melbourne E. 4; Toronto 4.

Contents copyrighted 1952, by McGraw-Hill Publishing Co. (All rights reserved)

Member of
Audit Bureau of Circulations
Associated Business Publications, Inc.

Departments

Editorial	4
Exploring the Textile Community	174
Kinks and Short-Cuts	180
New Dyes and Chemicals	172
News About Men	324
News About Mills	314
News About Suppliers	306
News of the Month	300
Obituary	332
Pointers for Supervisors	159
Questions and Answers	200
Reader Service	193
Reviews of Books	207
Round Table	177
Textile Equipment News	161
Textile Calendar	196
Textile IQ	178
Textile Tickles	177
Advertisers' Index	346

Table of Contents

APRIL • 1952
Vol. 102 No. 4
KEYED ACCORDING TO READER INTEREST

Feature Articles

SPINNER	WEAVER	KNITTER	FINISHER	ENGINEER			DYER SYNTHETICS	$
Y	W		F		"... But Is It Progress? (Editorial)	4		$
					ANNUAL KNITTING SECTION	105		$
	W				So You're Going Into TRICOT?	106		$
					How to Use the SINGLE-HEAD F.-F. Machine	108		$
	W				Production on TWO-BAR Tricot Machines	109		$
					How Drexel Mills Knits ARGYLE SOCKS	110		$
					Good WORKLOADS in Tubular Knitting	111		$
Y	W		F		TRICOT-DYEING Methods Affect Fabric Strength	112		$
					Seven Pointers for FULL-FASHIONED Knitters	114		$
	W				Checklist for TRICOT KNITTERS	116		$
					HOSIERY CONVEYOR Handles 400 Doz. per Hr.	118		$
					Conference Recommends Restraint, Cost Controls	119		$
					SG-1—New SPINNING FRAME	120		$
	W		F		HANDICAPPED PERSONS Pay Off	125		$
	W		F		Here's What to Expect From ORLON STAPLE	126		$
			F		TESTS Important to Good Fabric Coating	129		$
	W				You Can Reduce Your SHUTTLE-FUR Costs	130		$
	W		F		Fork Trucks Cut HANDLING Costs 50%	132		$
	W				Mill-Operating Tips From STA MEETINGS	135		$
			F		Conveyors Speed Bleachery Sewing, Shipping	136		
	W		F		DYER-FINISHER Joins TW Staff	138		$
					Poor Quality Cloth Traced to FAULTY SLIVER	139		
	W		F		Control Moisture With a Trained Humidifier Man	140		$
	W		F		N. C. State TEXTILE SCHOOL	142		$
					Battery-Filler TRUCKS	147		$
	W				Loom-Motor MAINTENANCE Prevents Failure	151		$
	W		F		POWER-CIRCUIT Maintenance	153		$
			F		What Causes PUMP FAILURE?	157		$

Kinks and Short-Cuts

	W				PLOTTING BOARD Helps Us Lay Out Patterns	180		
					CLOTH CONVEYOR Now Stops Automatically	180		$
	W				Replace FRICTION COLLARS the Easy Way	184		$
					Dancing AIR HOSE Cleans Abbott Units	184		$
	W				We Use Steel Wool To Tighten LAG SCREWS	184		
					MIRROR on Bobbin-Cleaning Machine	186		$
					GAUGE Helps Us Set Cleaner Pins to Rings	186		$
	W				Red Light Tells When CUT MARK Comes	186		$
	W				Round PICKING SHAFTS Give Little Trouble	188		
	W				How We Stopped Set Marks on S-6 LOOMS	190		$
			F		How We Cut the Cost Of Drying RAYON CAKES	190		$

In Other Departments

			F		Open-Width DYE KETTLE Has New Design	161		$
	W				SIZING CONTROL Developed	161		$
					Machine Knits OPEN-STITCHED FABRIC	162		$
					DOFFER'S TRUCK Has False Bottom	162		$
					PEN Eliminates Flooding, Choking	162		$
	W				Electronic Tricot-Beam LET-OFF	164		$
	W		F		MERCURY LAMP for Medium-Bay Areas	164		$
					LAB DRYER Maintains Temperature, Humidity	166		$
			F		Drum Roller Permits Agitation of FLUIDS	166		$
					FLOOR-PATCH Material Contains No Stone	166		$
	W				Machine Trues SHUTTLES to Same Size	168		$
			F		VERTICAL SINGER Runs at 350 Yd. per Min.	168		$
	W		F		Unit Blends Colors to Produce DAYLIGHT	168		$
	W				REGULATORS Eliminate Harness Cords	170		$
	W				Package Replacement Unit for SHEAVES	170		$
	W		F		CRADLE Permits Horizontal Storage of Drums	170		$

THE Long-Range VIEW

"—But Is It Progress?"

"I get the feeling," a New Englander told us the other day, "that all this activity [migration to the South] is just another phase of the old cycle of seeking out more favorable circumstances. I see the same things in mills and managements here that we have in New England. The only difference is that workers run more machines for less money.

"The new mills are beautiful, but I've seen many old ones that are no better than the worst ones in New England.

"And management. I see exactly the same types and caliber of management as in New England—the same attitudes, ambitions, and conflicts, and the same mistakes. It looks as though the 'migrators' are doing nothing except moving away from the scene of past mistakes and bringing the same mistakes with them. They may make more money in their new locations for a generation or so, until their mistakes catch up with them again—but is that progress?"

There is more than a grain of truth in what he said. We cannot close our eyes to straws in the wind that forebode evil days for the industry in the South.

Take the labor "hot-spots," for example.

There are certain areas in almost every textile state in the South where satisfactory operation of a mill is as impossible as in any area in New England. Fortunately, you can count these areas on your fingers; but that they developed at all is a very real straw in the wind. In nearly every case, the labor pool was agricultural and Anglo-Saxon. As these scattered hot-spots prove, this type of worker can be pushed until they become a cantankerous, troublesome lot who refuse to be a competitive work force.

Or take mill liquidations in the South.

We well remember a big cotton mill that folded up several years ago. For years it was as silent and dead as any of the great stone buildings in Fall River, Mass., are now. And every year some marginal operators in the South find the going too tough, and lock the doors.

Or take the tendency toward suspicion and secrecy—a well-known label in New England.

Some time ago a young man in a mill asked us the elementary question of how to figure drafts. He said his foreman refused to tell him.

And a few weeks ago at the end of a technical meeting, we overheard a mill engineer who had not opened his mouth during the meeting remark: "That's the way I operate. Learn all I can—and tell 'em nothing."

And several times in the last months representatives of equipment and supplies manufacturers have told us that more and more they are being refused admittance to the superintendents and overseers of mills. Certainly no mill man knows a commercial product as well as its manufacturer and his representatives. Here is a vital source of technical information that management policy based on suspicion and secrecy is denying the men who run its mills.

There are other straws in the wind—some less pretty than these.

But the point is that a strong case could be built up (as our New England visitor indicated) to show that: (1) many mill managements have not profited by past mistakes; (2) current migration is only one phase of an old, old cycle; and (3) the textile industry forever and ever seeks "workers [who] run more machines for less money."

We cannot accept that interpretation.

Seeking more favorable circumstances is a keystone of American character and the American economic system. Jamestown, Plymouth Rock, Kaintuck, California, Cherokee Strip—America itself; all surges of migration; all great economic movements of people seeking more favorable circumstances. Not in itself progress; but vigorous new territories where old ills do not necessarily have to afflict, where progress in technology and human relations can be made more easily, rapidly, and profitably.

However, to admit that migration is a never-ending cycle is to admit defeat. It is unthinkable that any considerable number of textile men have the attitude: "We'll make money in the South as long as 'workers run more machines for less money.' Then we'll retire or migrate again."

Migration is an escape from problems—not a solution of them. The age-old problems of the textile industry will not have been solved until the necessity for migration has been removed.

The South has at least a generation, and perhaps the normal life of a mill, to prove that it has too much vigor, imagination, and character to knuckle in to the "inevitable-cycle" psychology—to solve the problems that have sent New England mills stampeding Southward.

The key to success is two-fold: continuing technological progress and vastly better human-relations tools. Success in these fields offers management and supervisors a stimulating challenge and brings with it continuing rich rewards of the nature now obtainable in the South. Failure to progress in technology and human relations will bring the ever-threatening retribution of the American system: economic extinction—or migration.

A. M. Thomas

J. E. RHOADS & SONS REPRESENTATIVES TO THE TEXTILE INDUSTRY

C. R. Mitchell

A familiar figure to many textile men, "Bob" Mitchell is the manager of the Southern Sales District and the Atlanta Sales Office at 88 Forsyth Street, S. W.

L. H. Schwoebel

With 29 years' experience in the application of leather in the textile industry, Lou's territory covers the states of Virginia and North Carolina.

J. W. Mitchell

Brother of C. R. Mitchell, Warren Mitchell is a familiar figure among the textile men of South Carolina, Georgia and parts of North Carolina.

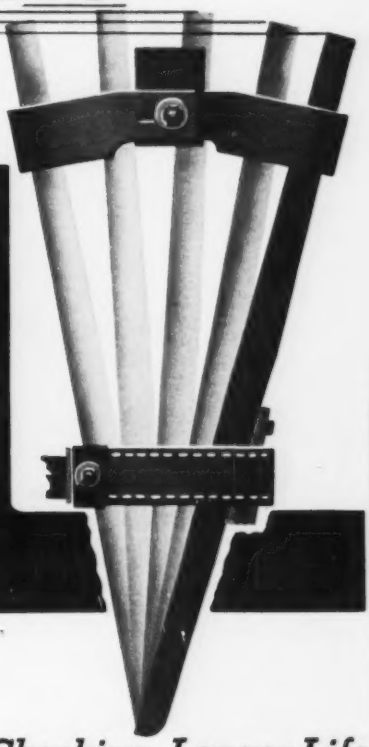
J. T. Hoffman

Representative of J. E. Rhoads & Sons to the textile mills located in Georgia, Florida and Texas with 22 years' experience serving the industry.

A. S. Jay

Always ready to lend a hand to help solve the problems of Southern textile men, Sid Jay covers Alabama, Mississippi, Arkansas, and Tennessee.

Tannate®



Bicut* Check Straps

...for Smoother Checking, Longer Life

When textile mills ask *why* Rhoads Bicut Check Straps last longer, offer smoother loom operation . . . we answer: because its exclusive design conforms to the arc of the picker stick. By checking the picker stick uniformly, Bicut straps outlast and outperform other straps. Another reason is: Bicut straps are accurately cut from leather specially tanned and curried to give them the desired toughness and flexibility, with the proper degree of resiliency to resist repeated shock and hard wear. You may test the Bicut Check Strap on your loom by contacting your Rhoads' sales engineer. Bicut Check Straps are available in a variety of weights to suit the width of your looms and the fabric being woven.

New textile leathers folder illustrates and describes the varieties of Rhoads leather products. Write J. E. Rhoads & Sons, 35 N. Sixth Street, Philadelphia 6, Pa.

*Trade Mark Reg.

250

J. E. RHOADS & SONS
ATLANTA • PHILADELPHIA
NEW YORK • CHICAGO

YEARS PRODUCING FINE LEATHER PRODUCTS

For more information, write direct or use Reader Service post card.

For

Perfect Twist-Setting ✓

Sloughing-off Prevention ✓

Moisture Regain ✓

Yarn Lubrication ✓

Increase in Breaking Strength ✓

Protection Against Mildew and Rust ✓

Use

KEARNY – Products

Often Copied **Never Equalled**

Machinery Division

Specialized Machinery for every kind of conditioning purpose for yarns and fabrics.

• •

PSYCHROMETERS
for instant determination of moisture and humidity.

Chemical Division

Specially developed grades of chemical liquids for every kind of conditioning of yarns and fabrics.

• •

PLURAMINE-S
a complete line of Textile *Detergents.*

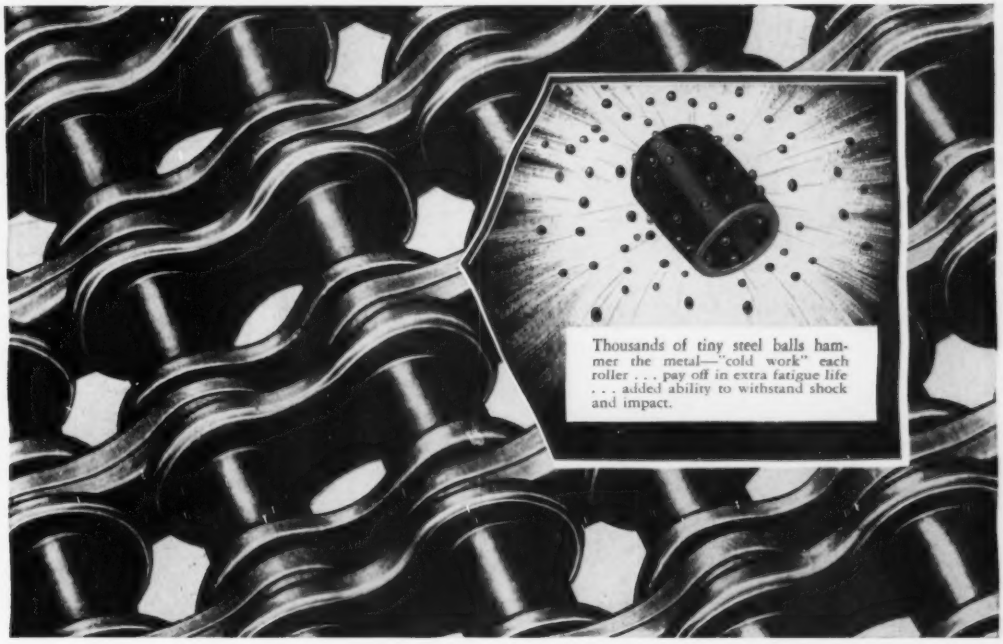
K E A R N Y

MANUFACTURING COMPANY, INC

Greenville, S. C. **Kearny, N. J.**

ORIGINATORS AND PIONEERS IN CHEMICAL CONDITIONING

Get the roller chain that gives you SHOT-PEENED rollers...


Thousands of tiny steel balls hammer the metal—"cold work" each roller . . . pay off in extra fatigue life . . . added ability to withstand shock and impact.

look for the darkened rollers!

THERE are sound reasons for the universal acceptance of Link-Belt Precision Steel Roller Chain. Two of them—shot-peened rollers and Lock-type Bushings—are shown here.

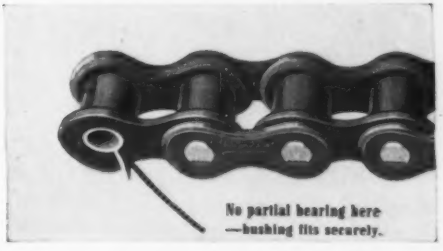
Others include Link-Belt's rigid material selection and controlled heat treating—your assurance of absolute uniformity with no weak members.

Whether it's for drive or conveyor service, you can get the best in roller chain from the complete Link-Belt line—single and multiple widths, in 3/8" through 3", and double pitch, 1" through 3". Next time you need roller chain, call the Link-Belt office near you.

LINK-BELT

PRECISION STEEL ROLLER CHAIN

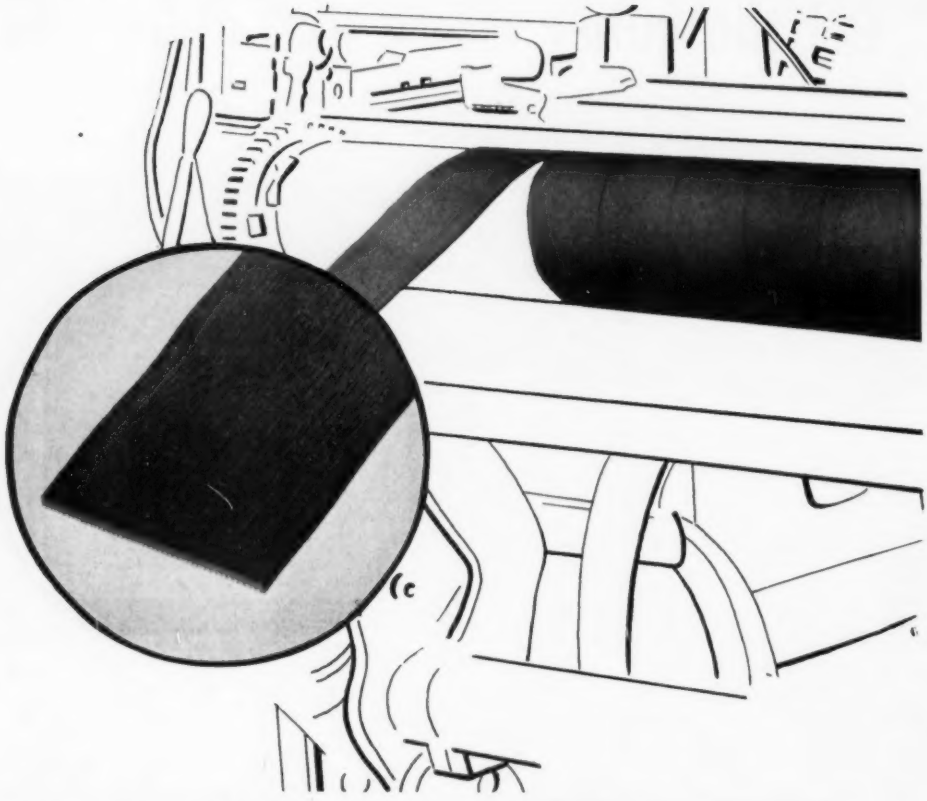
LINK-BELT COMPANY: Chicago 9, Indianapolis 6, Philadelphia 40, Atlanta, Houston 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8, Springs (South Africa). Offices, Factory Branch Stores and Distributors in Principal Cities. 12,089



Lock-type Bushings increase ability to withstand shock loads

A special manufacturing process securely locks the inside sidebars on the bushing, preventing lateral movement of the sidebars and eliminating a common cause of stiff chains. This Link-Belt development is applied on roller chains through 1" pitch and double pitch roller chains through 2" pitch.

 For more information, write direct or use Reader Service post card.



UP TO TWICE THE HOLDING POWER

with this new take-up roll covering

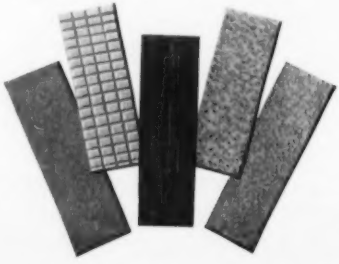
When you want strong, even take-up tension without risk of marking fine work, you'll find there's nothing equal to Armstrong's NO-732. It's made of an amazing new synthetic rubber compound with up to twice the holding power you'd expect from rubber . . . yet it's so smooth it won't mark even the most delicate high-count materials.

Armstrong's NO-732 is supplied in widths up to 4 inches and rolls up to 250 feet. It is backed with a sturdy fabric and is easy to apply with the Armstrong's Adhesive that also is available.

For samples and complete details, call your Armstrong representative or your regular source of mill supplies. Do it today. Armstrong Cork Company, Textile Products Department, 8304 Arch Street, Lancaster, Penna.

A COMPLETE LINE OF TAKE-UP ROLL COVERINGS

Whatever your preference, Armstrong can supply a wide choice of take-up roll coverings of synthetic rubber, cork-and-synthetic rubber, plain or gridded cork.



ARMSTRONG'S TAKE-UP ROLL COVERS

PRODUCT OF THE ARMSTRONG CORK COMPANY, TEXTILE PRODUCTS DEPARTMENT, LANCASTER, PENNA.

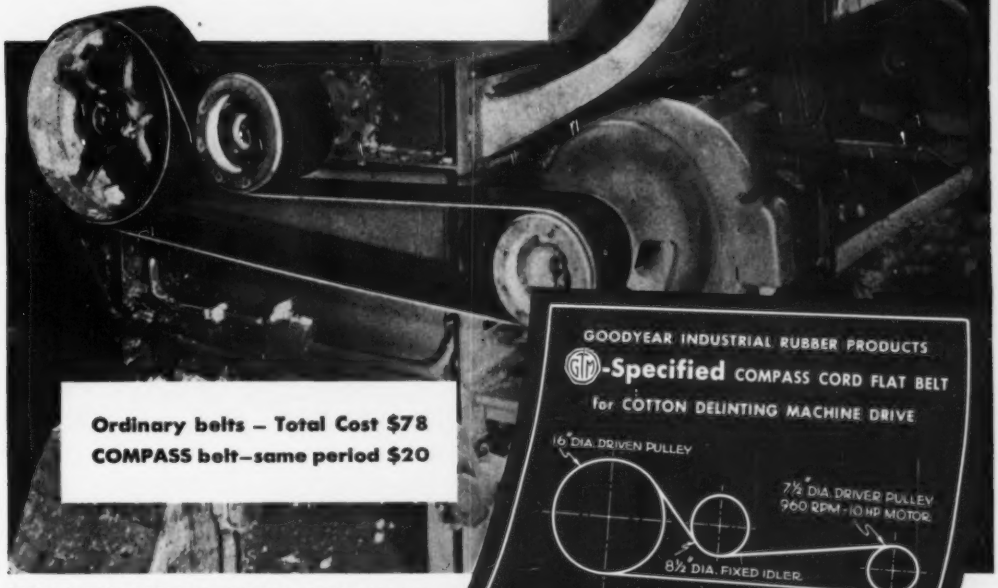
For more information, write direct or use Reader Service post card.

6 Times the service

¼ THE COST ON COTTON LINTER DRIVE

Ordinary belts—costing $13.00 each—failed in three months because of heavy overload on cotton delinting machine. *Total belt cost in 18 months about $78.00.*

The G.T.M.—Goodyear Technical Man—recommended COMPASS endless flat belt which has served 6 times as long and is still going. COMPASS *belt has been running 18 months at cost of about $20.00.*


Ordinary belts – Total Cost $78
COMPASS belt–same period $20
GOODYEAR INDUSTRIAL RUBBER PRODUCTS
GTM-Specified COMPASS CORD FLAT BELT
for COTTON DELINTING MACHINE DRIVE
16" DIA. DRIVEN PULLEY
7½" DIA. DRIVER PULLEY
960 RPM - 10 HP MOTOR
8½" DIA. FIXED IDLER
41½" C/C

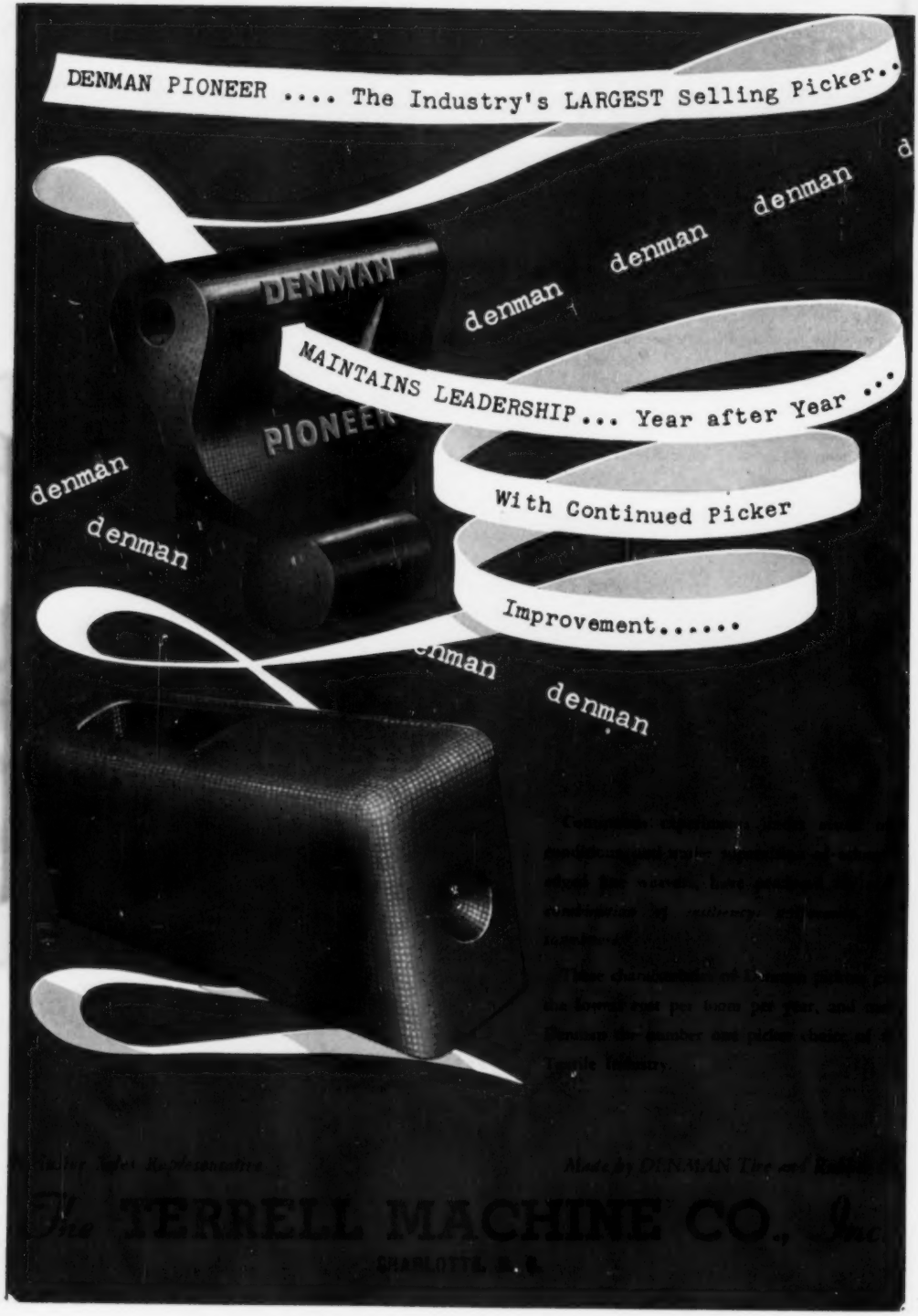
LOOK FOR YOUR GOODYEAR INDUSTRIAL RUBBER PRODUCTS DISTRIBUTOR *in the yellow pages of your Telephone Directory under "Rubber Products" or "Rubber Goods." He handles Hose, Flat Belts, V-Belts, Molded Goods, Packing, Tank Lining, Rubber-Covered Rolls, built to the world's highest standard of quality.*

GOODYEAR

THE GREATEST NAME IN RUBBER

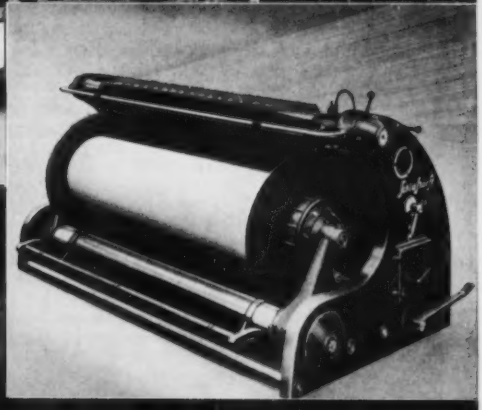
We think you'll like "THE GREATEST STORY EVER TOLD"—Every Sunday—ABC Network

Compass—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio


DENMAN PIONEER .... The Industry's LARGEST Selling Picker..
DENMAN
denman
denman
denman
MAINTAINS LEADERSHIP... Year after Year ...
PIONEER
With Continued Picker
Improvement.....
denman
denman
denman
denman
TERRELL MACHINE CO.,

MACHINERY FOR WINDING AND WARPING

Schlafhorst



UNIONMATIC

MAKERS: - W. SCHLAFHORST & CO., M. GLADBACH, GERMANY

TWO BIG AIDS for producing BETTER YARNS

NOPCO* FUA

—the self-fulling WOOL oil whose remarkable efficiency and versatile performance is proven daily in mills thruout the country. Acts like an *oil* during carding, gilling and spinning, and like a *soap* in wet finishing.

ASSURES:

1 Excellent fiber lubrication, elimination of static, no gumming of cards. Result: Better carding and loftier roving.

2 Increased yarn strength, improved spinning on mules or frames. Result: Higher spinning production.

3 Improved results from the steaming process—since Nopco FUA does not set in the yarn, nor in fabric when greige goods are crabbed. Result: No cloudy dyeing.

4 Excellent results from the fulling process—since Nopco FUA provides superior fulling with excellent sudsing action (*without* the addition of soaps or detergents).

5 Fast, ultra-efficient scouring—again without the addition of soaps or detergents. Residual oil content only about 0.2%.

Reg. U. S. Pat. Off.

NOPCO 1656-R

—the specially developed anti-static oil that enables the WORSTED manufacturer to obtain exceptionally good results—comparable to those achieved by users of Nopco FUA for wool processing.

1 Fibers remain static-free thruout carding, gilling, combing and drawing.

2 Even-running yarn is assured.

3 Removal is phenomenal. Used in conjunction with alkali, polyphosphate and water, Nopco 1656-R actually *converts into suds.* Soap usage is reduced 50-75%.

4 Because of this self-scouring feature, *better* dyeing and finishing results are obtained at *lower* cost.

5 Nopco 1656-R is non-gumming, non-yellowing, non-corrosive.

6 No changes in equipment or methods are necessary. Nopco 1656-R is applied in same manner as any conventional lubricant.

If you buy WORSTED top, specify Nopco 1656-R—every commission top maker is thoroughly familiar with it. If you manufacture WORSTED tops, process them with Nopco 1656-R and profit by gaining increased customer satisfaction.

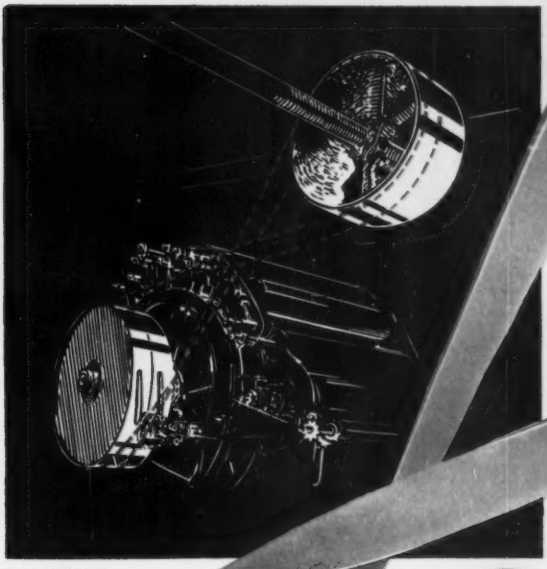
NOPCO — EVOLVED THRU RESEARCH

NOPCO CHEMICAL COMPANY

HARRISON, NEW JERSEY

Branches: Boston • Chicago • Cedartown, Ga. • Richmond, Calif.

your pulleys will drive your machines only as well as your belts drive your pulleys

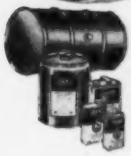


Graton & Knight HEART OAK leather belt on main cross shifter drive to wool card.

if you want more production, get GRATON AND KNIGHT leather belting for more production-power

Get a Graton & Knight "Live Traction" Leather Belt — because it is engineered to transmit maximum uniform horsepower at correct speeds and sustained R.P.M. — with ample reserve for load peaks, and "fluid drive action" to absorb starting torque and load shocks.

For tough conditions, cross, shifter and idler drives, **HEART OAK** top grade center stock oak tannage. For short center, small pulley, cone pulley and serpentine *precision* drives, **RESEARCH®** premium quality. For ambient conditions (steam, oil, water, acid and alkali fumes) **SPARTAN®** combination tannage . . . Whatever your conditions, you'll get more production-power with Graton & Knight *Engineered* Leather Belting.



and keep your belts pulling for you

Stop belt slippage — prolong belt life with GRAKO® CLEAR Belt Dressing, result of 100 years experience in leather tanning and belt manufacture. Preserves and lubricates the fibres. Pint, quart and gallon cans — 5-gallon and 50-gallon drums. Send for circular.

New Belting Catalog and Manual

shows how to get more production-power with leather belting. Our representative will deliver your (free) copy upon request.

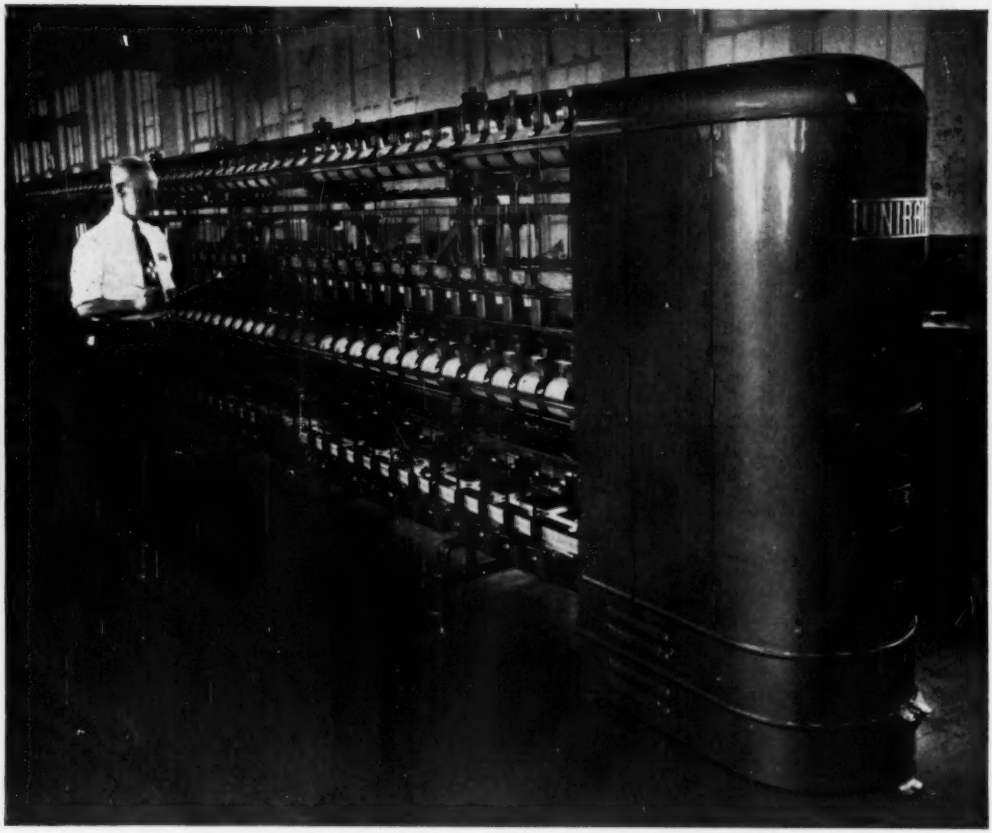
GRATON & KNIGHT COMPANY
356 Franklin St., Worcester 4, Mass.

second century G and K **engineered leather belting for more production-power**

GRATON AND KNIGHT Estab. 1851

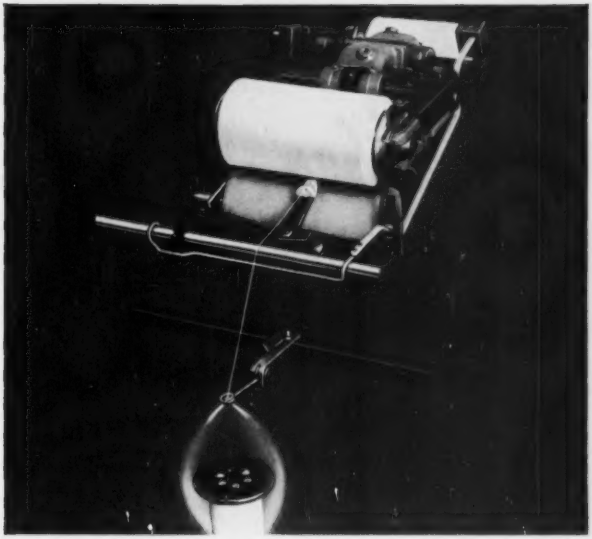
All-New Unirail Uptwister

cuts your costs four ways and improves yarn quality



1. PRE-ERECTION AND FACTORY RUN-IN before shipment greatly simplifies the installation of the Unirail Uptwister in your mill. This Standard Bobbin Take-Up Unirail Uptwister — here shown during factory run-in and inspection — comes to you in only three sections. They are ready to operate in a matter of hours. This pre-erection also eliminates the handling and storing of numerous boxes and crates . . . reduces costly supervisory time . . . does away with "missing parts" delays. These savings apply whether you order Straight or Tapered Headless Package, Bobbin Hanger, or Finger Take-Up Unirails.

For more information, write direct or use Reader Service post card.

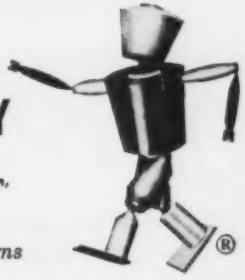


2. LESS YARN HANDLING leads to more production . . . lower costs and better quality. Straighter thread line from delivery to take-up package plus self-threading guide, quick threading centering eye, simple automatic tailing device and other features cut yarn handling time far below anything you've ever known before. This applies to both Bobbin and Headless Package Take-Up. Further time is saved on the Headless Package Unirail by the automatic tailing device and the entirely new hinged arbor, which guards quality by letting you doff without touching the yarn. Stop motion, too, protects the yarn by lifting the package off the take-up roll when an end-break or runout occurs.

3. LESS MAINTENANCE AND LONGER LIFE result from a combination of unique features. The new Uniflex Spindle, described at the right, requires lubrication only once a year. So do the ball-bearing idlers, which don't have to be removed for lubrication. Yearly lubrication takes care of the take-up shaft bearings and leakproof twist unit. All are designed to eliminate oil dispersion. This reduces lint accumulation. So, you don't have to clean machines so often. Clean machines means clean yarn production at all times. Accurate machining, sturdy cast iron bedplate construction and vibration reduction maintain alignment and retard wear.

4. LOWER POWER COSTS—according to tests under various conditions which showed savings up to 20% and more — result from the superior design features incorporated in the new Unirail Uptwister. Chief among them is the new high-speed Uniflex roller-bearing spindle. There's no other spindle like it. Its flexible lower blade and unique bearing design cut down vibration . . . reduce bearing loads . . . increase spindle life . . . allow safe speeds up to 16,000 RPM under satisfactory conditions.

WRITE FOR BULLETIN 501 which shows you how the entirely new Unirail Uptwister improves yarn quality and package build at higher speeds and lower costs.



UNIVERSAL WINDING COMPANY

P. O. Box 1605, Providence 1, R. I.

Boston, Philadelphia, Utica, Charlotte, Atlanta, Chicago, Los Angeles; Montreal, Hamilton, Canada; Manchester, England; Paris, France; Basle, Switzerland

Agents in every principal textile center throughout the world

Winding and Twisting Machinery for Natural and Synthetic Yarns

23.1.30

1 Johnson All-Fiber Slasher Replaces 3 Cotton Slashers

A leading mill replaces three cotton slashers with a single Johnson all-fibre slasher. It reports:

1. There is no letdown in production. One sizer does the work of the three cotton slashers.
2. All-cotton warps are improved in quality.
3. Loom production is increased.
4. Maintenance costs are sharply reduced.
5. Floor space is released for other uses.
6. Rayon, spun rayon, acetate, nylon, orlon and other synthetic warps can be sized efficiently at high production speed.
7. The slashing equipment is completely modernized for present and future warp slashing requirements.

Whether you can make the change now or later on, ask us to send you the Johnson Sizer Check-Up of savings you can make in your slasher room by using the Johnson sizer.

Charles B. Johnson

PATERSON, NEW JERSEY

VOGUE says

"More Sunny Blues everywhere"

SANDOZ has the dye you need for your blue shades

for wool or silk

Xylene Fast Blue PR
Xylene Fast Blue P2G

for cotton or rayon

Pyrazol Fast Blue FGL
Pyrazol Fast Blue LUL
Pyrazol Fast Blue 3GLN

for acetate or dacron

Artisil Direct Blue GFL*

*This Sandoz blue combines excellent fastness to light- and gas-fading with good dyeing properties.

Send for your copy of Sandoz' booklet, "Dyeing of the Newer Synthetic Fibers," covering the processing of *orlon*, *acrilan*, *dacron*, *dynel* and *vicara*.

SANDOZ

thinks ahead with textiles

SANDOZ

For forecast colors as well as perennial favorites for both natural and synthetic fibers—select from Sandoz' line of chrome, acid, acetate and direct dyes . . . and auxiliary chemicals — detergents, dyeing assistants, finishes.

Please turn the page

SANDOZ CHEMICAL WORKS, INC., 61 Van Dam Street, New York 13, N. Y. • Boston, Providence, Fairlawn, N. J., Philadelphia, Charlotte, Chicago, Los Angeles, Montreal, Toronto.

4 LEUCOPHORS

Optical Bleaches for Whiter Whites... Brighter Brights

LEUCOPHOR WS

for Wool, Nylon, Acetate, Silk

ORLON, DYNEL

It's easy to apply because it is absorbed by the fiber at low temperatures

LEUCOPHOR R

(REDDISH CAST)

for Cotton and Rayon

Excellent in anti-crease liquors and other acid finishing processes

LEUCOPHOR B

(BLUISH CAST)

for Cotton and Rayon

Improves white effects on checked or striped fabrics containing colored and white effects

LEUCOPHOR DC

Soluble in organic solvents: trichlorethylene, carbon tetrachloride, tetrachlorethylene, benzene, chlorobenzene, toluene, naptha, acetone and mixtures of these solvents

Send for your copy of all these new Sandoz' booklets:

- √ Leucophor B
- √ Leucophor WS
- √ Leucophor R
- √ Leucophor DC

SANDOZ CHEMICAL WORKS, INC., 61 Van Dam Street, New York 13, N. Y. **Sales offices:** Boston, Providence, Fairlawn, N. J., Philadelphia, Charlotte, Chicago, Los Angeles, Montreal, Toronto.

SANDOZ *thinks ahead with textiles*

SANDOZ

SINCE 1883

TROPICAL

heavy-duty

MAINTENANCE PAINTS

For Special Coatings, Industry has Depended on TROPICAL for 68 Years

Where service is severe, maintenance men have a habit of turning to Tropical heavy-duty paints. In almost any industry you can think of, from steel to textiles, and in commercial buildings and hotels, in schools, colleges, hospitals and institutions, Tropical paints have set records of endurance where the going is tough. Whether the application must resist acid fumes, alkalies, rust or heat . . . on metal, masonry, wood or concrete . . . on floors, walls, ceilings, roofs, machines or equipment . . . there is a Tropical paint *that has proved it can do the job better!* Take advantage of the experience, advice and personal service offered by your local Tropical maintenance paint specialist. Write us today.

Since 1883

HEAVY-DUTY MAINTENANCE PAINTS

TROPICAL®

SUBSIDIARY OF PARKER RUST PROOF COMPANY

MAKERS OF Bonderite QUALITY CORROSION RESISTANT

Why do 1/3 of U. S. TEXTILE PLANTS use Tropical?

. . . because they have proved Tropical paints superior for a multitude of "tough" applications, from dye sticks and bobbins to oven trays and loom harnesses. Where chemicals, rust and moisture are real problems, Tropical *heavy-duty* paints far outlast ordinary maintenance paints!

FREE! **Send for your free copy of the "Industrial Paint Index"—a quick, convenient reference chart for a multitude of maintenance paint applications.**

THE TROPICAL PAINT & OIL COMPANY • 1120-1298 West 70th St., Cleveland 2, Ohio

How to make a profit on the roving operation

1. MAKE MORE ROVING in less time. The higher speeds and increased efficiency of the Platt M • S • 2 will result in production increases.

2. KEEP FRAMES RUNNING. Unprecedented fiber and twist control results in an extremely strong and regular roving which has reduced the end breakage rate as much as 50%.

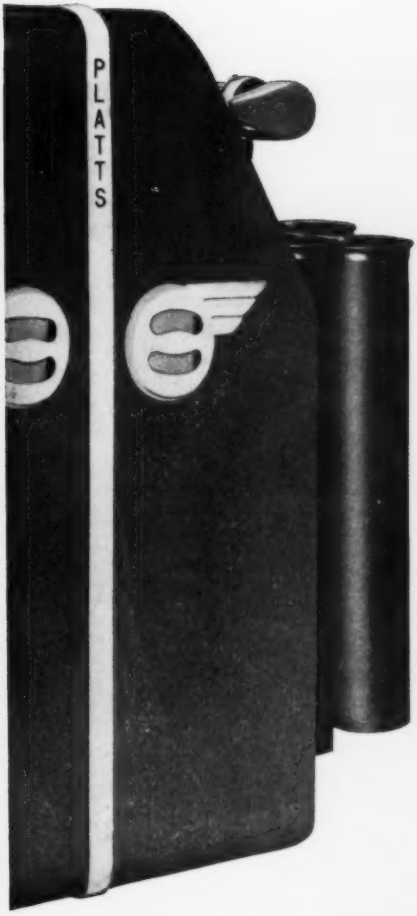
3. REDUCE WASTE accumulation by as much as 75% as the firmer roving produced by the M • S • 2 does not shed as much fly, a contributary cause to end breakage.

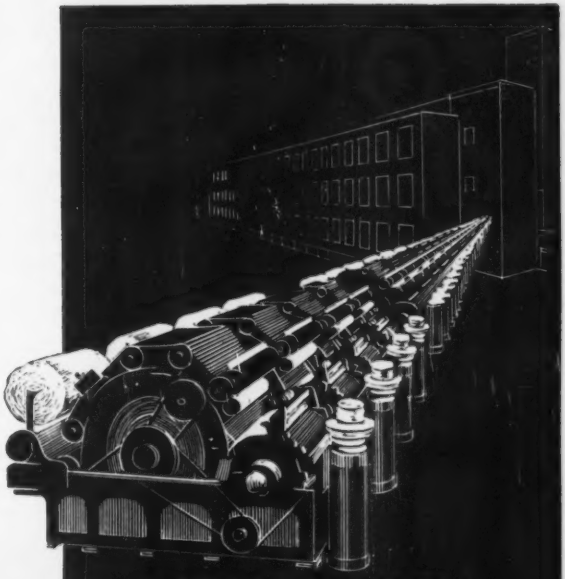
4. INCREASE EFFICIENCY of operatives with the larger bobbins, fewer ends down and the low maintenance engineering of the M • S • 2. It is a very quiet machine, which in itself tends to raise the efficiency of every person in the department.

5. GET MORE MACHINE FOR YOUR DOLLAR. We are sure we can prove to you, on either a productive or a longer life basis, that the M • S • 2 would be a highly profitable machine in your roving department.

PLATT BROS.
SALES LTD. OLDHAM, ENGLAND

the M·S·2 High Draft ROVING FRAME





HOW FAR DO THE EFFECTS OF GOOD CARDING EXTEND?

The effects of better carding are felt immediately in the roving, spinning and even twisting departments. We feel that our world-wide experience with machinery in ALL these departments is unsurpassed. Perhaps we could help you select the machines that will best fit into your mill's operation. Your inquiry will incur no obligation and the results will prove of real value to you.

Atkinson, Haserick & Co.

a.h.

Textile Machinery Agents and Engineers Since 1823

211 CONGRESS STREET
BOSTON 6, MASS.
1639 W. MOREHEAD STREET
CHARLOTTE 2, N. C.

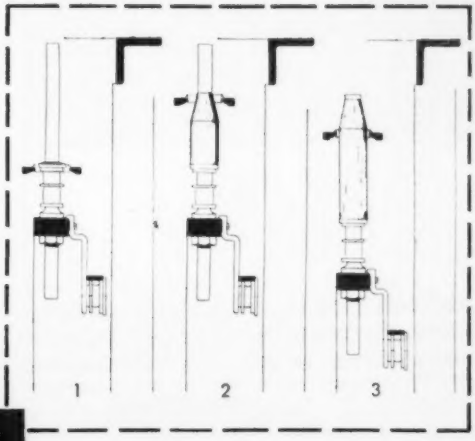
Large Package High Speed

MAGNUM RING SPINNING FRAME

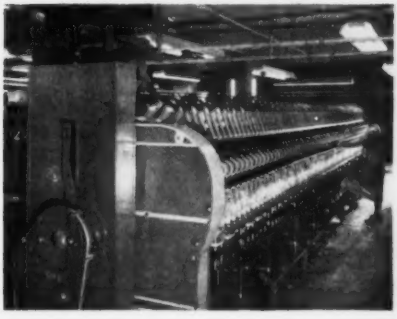
The Magnum Ring Spinning Frame combines the valuable features of a stationary ring rail spinning frame, with the good points of a traversing ring rail type of machine. It eliminates practically all the disadvantages of both, with the result that very large packages may be used with complete success. These packages may go up to 8 ounces and cover counts up to 42's. The greater length on the bobbin allows for fewer doffings, consequently, higher efficiency of the machine and the operatives. Less frequent creeling in later winding operations is a valuable indirect benefit. This is a *tested* and well *proven* spinning frame which has demonstrated its ability in hundreds of mills to produce excellent quality worsted yarn at high speeds. It would be a pleasure to send you data on the capabilities of the Magnum Ring Spinning Frame with reference to the type of yarns you produce.

U.S.A. Agents for French System Machinery: Blake Electric Mfg. Co., 43 Commercial Wharf, Boston 10, Mass.

How Magnum action steadies the balloon

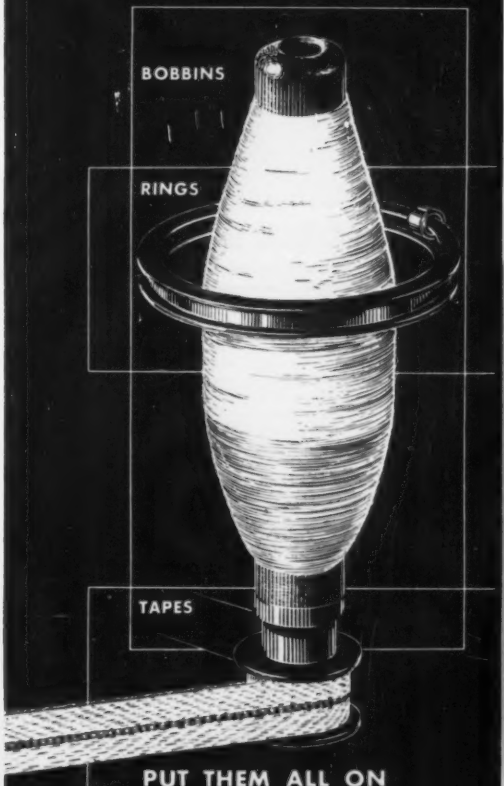


Progressive stages of building the bobbin are shown in the illustration. You will note that the spindle rail is stationary until the bobbin is half filled. At this time it starts to drop in order to compensate for the rise of the ring rail. This dual action maintains a relatively constant balloon. With this control, yarn breakage is quite infrequent, in fact you will find that your yarn will now contain only about a quarter of the knots formerly experienced from standard ring frames.



WE ARE INDEBTED TO
THE CLEVELAND WORSTED MILLS CO.
FOR THE PHOTOS
APPEARING ON THESE PAGES

Get Your
MILL SUPPLIES
the easy way

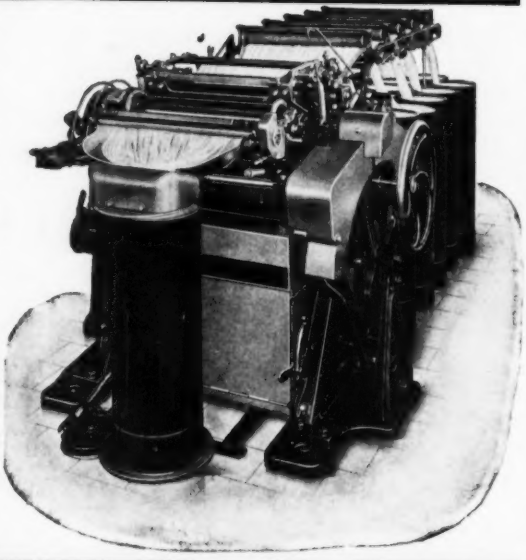


PUT THEM ALL ON
THE SAME ORDER
To

Atkinson, Haserick & Co.
Textile Machinery Agents and Engineers Since 1823
a.h.
211 CONGRESS STREET
BOSTON 6, MASS.
1639 W. MOREHEAD STREET
CHARLOTTE 2, N. C.

SACM

SOCIETE ALSACIENNE
DE CONSTRUCTIONS MECANIQUES
MULHOUSE FRANCE



RECTILINEAR COMB type S. A. G.
for staple fibres, chappe silk,
china grass and flax tow.

MACHINERY FOR TEXTILE INDUSTRY
WORSTED SPINNING

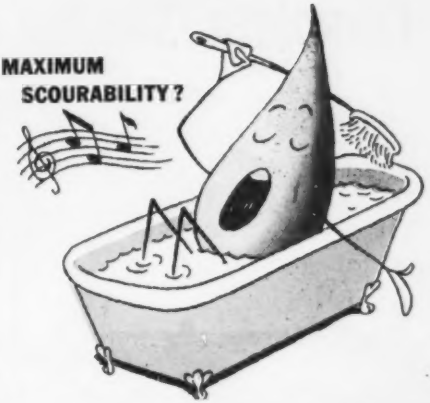
•

Representative in U. S. A.

ATKINSON, HASERICK & Co.- BOSTON 6, Mass.

211 Congress Street - Tel: Hancock 0530

What Do You Need Most in Your Wool Oil?



You Get Your Choice . . . On a Price-Performance Basis . . . From Our Five Proved Products

Is *scourability* vital in the wool oil you use? *Resistance to discoloration* important? Oil *price* a prime factor?

Whatever your needs—whatever your operation—you'll find just the right product in the complete line of *S/V Woolrex Oils*. Each of these five oils is of highest quality in its class . . . each is designed to do a specific job—*on a price-performance basis!* For example . . .

S/V Woolrex SS is a *premium* oil with maximum scourability and exceptional resistance to discoloration. *S/V Woolrex 1000* is a low-cost product for use where maximum scourability and discoloration resistance are not vital. Between these two are *S/V Woolrex* 1500, 2000 and 3000—with varying degrees of scourability and discoloration resistance, and priced accordingly.

* * *

Your Socony-Vacuum Representative will recommend the most suitable oil—both as to performance and price—for your particular operation. Call him today.

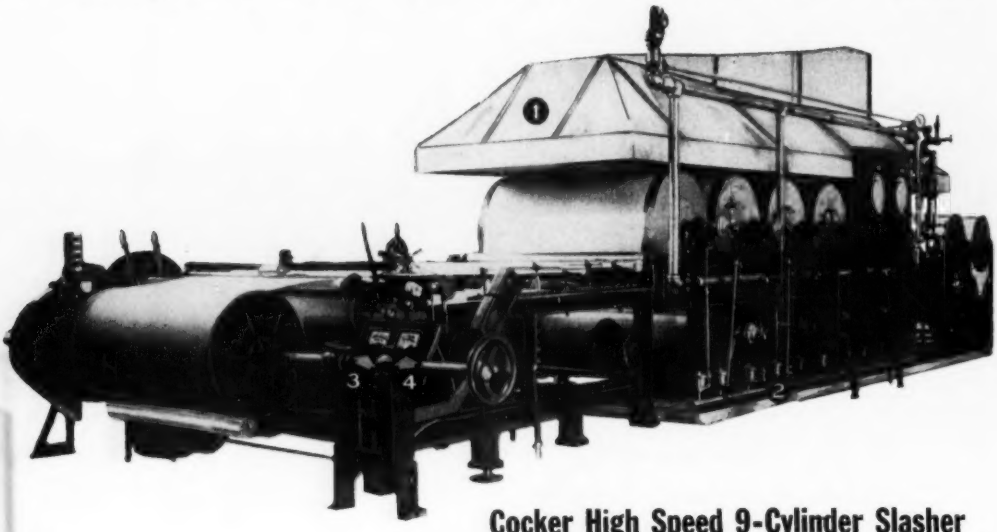
Socony-Vacuum
Process Products

Process Products
SOCONY-VACUUM

SOCONY-VACUUM OIL COMPANY, INC., 26 Broadway, New York 4, N. Y.
and Affiliates: MAGNOLIA PETROLEUM COMPANY, GENERAL PETROLEUM CORPORATION

For more information, write direct or use Reader Service post card.

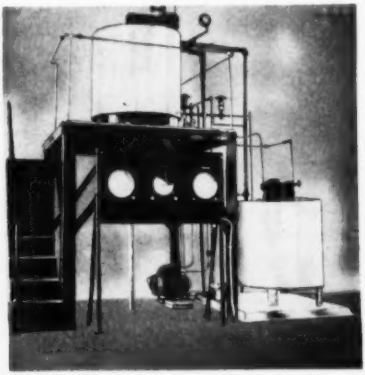
A Complete Slasher Installation by Cocker



Cocker High Speed 9-Cylinder Slasher
For Cottons—Spuns—Filaments—and other yarns

1. Stainless Steel Hood . . . by Cocker
2. Stainless Steel Drip Pan . . . by Cocker
3. Accurate Electric Stretch Indicator
4. Accurate Electric Speed Indicator

We now have complete facilities for making complete size room installations . . . stainless steel cooking and storage kettles, stainless steel hoods, stainless steel drip pans . . . as well as modern high speed Cocker Slashers for cottons, spuns, filaments, and other yarns. Let us figure on the complete installation of everything in your slasher room.



Complete Cooking and Storage Kettle installation . . . mounted on all-metal Cocker-built tables.

THE LEADER COCKER AROUND THE WORLD

Machine and Foundry Co., Gastonia, N. C.

WORLD'S LARGEST DESIGNERS AND BUILDERS OF COMPLETE WARP PREPARATORY EQUIPMENT

The Sure AHCOFIX* Way!

AHCOFIX* A

A superior synthetic fixation agent for dyestuffs that does a sure, thorough job of *stopping* bleeding of direct dyes.

AHCOFIX* A resists perspiration and minimizes further finishing operations due to its softening properties.

AHCOFIX* C

For WASHFASTNESS and minimum deterioration of lightfastness. Easy and economical to use. Gives improved shade control.

Complete information on AHCOFIX* A and C available on request.

AHCO PRODUCTS
ARNOLD, HOFFMAN
PROVIDENCE • RHODE ISLAND
Associated with
Imperial Chemical Industries Ltd.
London, England

ARNOLD, HOFFMAN & CO., INCORPORATED · EST. 1815 · PROVIDENCE, R. I.
Offices: Charlotte, Cincinnati, New York, Teterboro, Providence
Plants: Charlotte, N. C. · Cincinnati, Ohio · Dighton, Mass.

* Reg. Trademark

THE *Key* TO MODERN PRODUCTION...
FROM OLD SPINNING AND TWISTING FRAMES

SCORES of mills have found that they can salvage millions of dollars in capital investment —and at the same time make their yarn output competitive in *quality*, *quantity*, and *cost*—by modernizing their band-driven or old-style tape-driven spinning and twisting frames with "Meadows Modernizers."

A typical Meadows "Conversion" consists in the installation of individual drive pulleys, ball bearing tape tension pulleys, aluminum alloy separators, silent chain drive, and high-strength polished and ground steel shafting, mounted on heavy-duty, self aligning ball-bearings.

The result is lower power consumption, even tension at all times, a more uniform speed and twist, fewer ends down, and increased yarn production . . . at far less than the capital investment cost of new frames. Can be easily and quickly installed. Write or call us for estimate and particulars.

MEADOWS CONVERSIONS

MEADOWS MANUFACTURING COMPANY • ATLANTA, GEORGIA

Representatives:

JAMES P. COLEMAN
P.O. Box 1351
Greenville, South Carolina

MATTHEWS EQUIPMENT COMPANY
93-A Broadway
Providence, Rhode Island

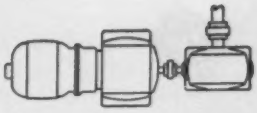
SAM HOGG
Atlanta, Georgia

COLEMAN-ROWE, INC.
P.O. Box 782
Salisbury, North Carolina

For more information, write direct or use Reader Service post card.

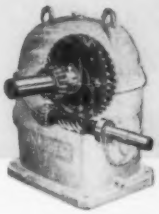
Which of these speed reduction jobs is yours?

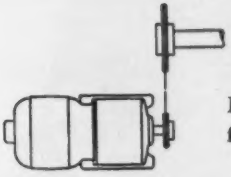
High-ratio reduction with right-angle takeoff?



Get a LINK-BELT Worm Gear Drive

Reduction ratios: 3.1:1 to 8000:1. Torque: 1400 to 123,000 in. lbs. Output shaft rpm: 0.22 to 564. Drawing shows motorized P.I.V. variable speed and worm gear drives direct-coupled.

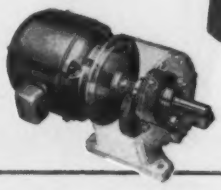




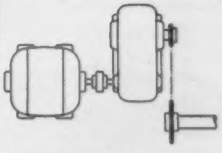
Restricted space for mounting?

Get a LINK-BELT Gearmotor

Reduction ratios: 6.2:1 to 292:1. Hp range: 1 to 30. Output shaft rpm: 6 to 280. Drawing shows gearmotor with roller chain drive.

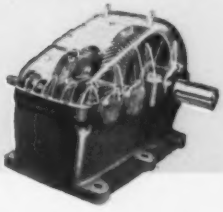


High hp with parallel shaft takeoff?



Get a LINK-BELT Herringbone Gear Drive

Reduction ratios: 2.84:1 to 318:1. Hp range: ½ to 1000. Output shaft rpm: 2 to 600. Drawing shows motor with herringbone gear and roller chain drives.



Yes, LINK-BELT builds all 3

NO LONGER need speed reduction be the limiting factor in a design or application problem. Because no *one* speed reducer solves every reduction problem, Link-Belt builds all three—Helical, Herringbone and Worm. Now it is only necessary to choose the right type of Link-Belt enclosed gear drive . . . and select the hp and reduction ratio that fit your requirements. You can get complete engineering information from the Link-Belt office near you.

LINK-BELT

ENCLOSED GEAR DRIVES

LINK-BELT COMPANY Chicago 9, Indianapolis 6, Philadelphia 40, Atlanta, Houston 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8, Springs (South Africa), Sydney (Australia). Offices, Factory Branch Stores and Distributors in Principal Cities.

For more information, write direct or use Reader Service post card.

FOOT-MOUNTED LIFE-LINE LOOM MOTOR

Ratings—Hp—¾, 1, 1½, 2
Frequency—60 cycles
Phase—2 and 3
Synchronous speeds—1800 and 1200 rpm. Volts—220, 440, 550

These motors are furnished foot-mounted or with a 3-point suspension bracket as required.

LINT-FREE TEXTILE MOTOR

Hp—1½ to 20
Cycles—60
Volts—220, 440, 550
Frames—224 through 364

FACTORY MUTUAL

FM

APPROVED

LINT-TIGHT LOOM MOTOR STARTER
(NEMA 1A gasketed enclosure)

Class	Size	110V	208-220V	440-600V
10-100 VOA	0	1½	2	2
10-100 VI	1	3	5	7½

approved by Associated Factory Mutual Fire Insurance Companies—exclusive with Westinghouse.

Your Best Motor and Control Buy Today

★ **Life-Line Loom Motors**
★ **Lint-Free Textile Motors**
★ **Lint-Tight Loom Motor Starters**

Westinghouse offers you fast delivery of the finest design in Lint-Free Motors, Loom Motors and the *only* NEMA 1A manual Lint-Tight Loom Motor Starter on the market today.

LINT-FREE MOTORS . . . provide streamlined, highly polished, stator windings and smooth internal surfaces to prevent clogging and offer no foothold for lint to accumulate. Pre-lubricated, sealed ball bearings eliminate greasing attention.

LIFE-LINE LOOM MOTORS . . . have balanced design, combining the beneficial effects of flywheel effect and slip, smoothing out the peak-and-valley loom loads with a resulting minimum consumption of electrical energy. Pre-lubricated bearings.

LINT-TIGHT LOOM MOTOR STARTER . . . is the *only* NEMA 1A Starter approved by the Associated Factory Mutual Fire Insurance Companies. It's the first gasketed Lint-Tight Loom Motor Starter designed specifically to reduce electrical fire hazards.

Act now. Call or wire your nearest Westinghouse Electric Corporation office. J-21665

YOU CAN BE SURE... IF IT'S
Westinghouse
MOTORS and CONTROLS

IMMEDIATE ACTION

Westinghouse Electric Corporation
P. O. Box 868
Pittsburgh 30, Penna.

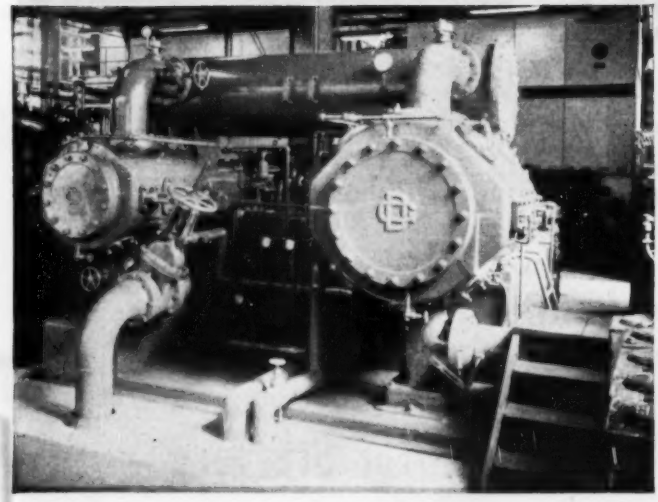
Send complete information on following:

☐ Lint-Free Motor	DB-3880-2
☐ Loom Motor	DB-3880-1 CSP
☐ Loom Motor Starter	B-5256

Name_____

Company_____

Address_____ City_____ State_____



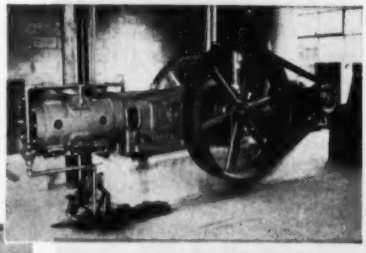
Pin Money Maintenance!

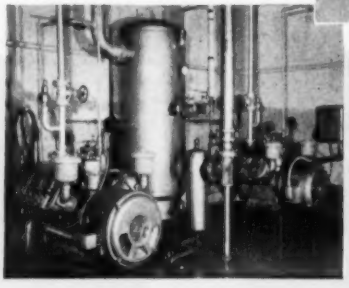
That's all it takes to keep a Gardner-Denver HA Compressor puffing away at top efficiency. One HA, for example, has been handling the full air load in a southern foundry and manufacturing plant for eight years—and has required only $10.00 for maintenance. That's $1.25 a year!

How come? A look at the soundly built power end and the reliable lubricating system will give you some of the answers.

And how about operating costs? They're unusually low, too—thanks to Gardner-Denver correctly designed air cylinders and low-lift "Air Cushioned" valves.

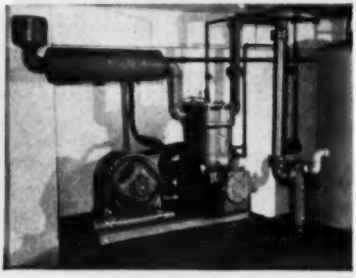
Another dependable compressor —the Gardner-Denver RX.





Space-saving efficiency—with Gardner-Denver WB Compressors.

For low-cost compressed air in any volume—choose Gardner-Denver Compressors. Write today for full details.



For continuous service— Gardner-Denver AA Compressors.

SINCE 1859

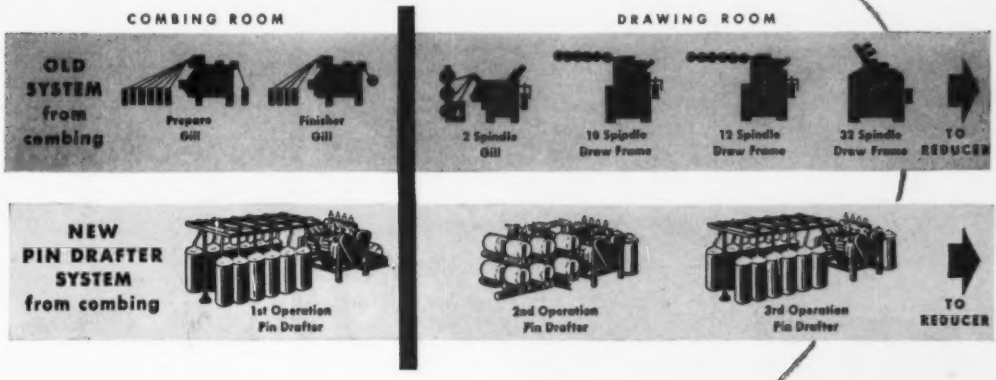
GARDNER-DENVER

Gardner-Denver Company, Quincy, Illinois
In Canada:
Gardner-Denver Company (Canada), Ltd., Toronto, Ontario

Atlanta, Ga.; Birmingham, Ala.; Knoxville, Tenn.; Washington, D. C.; New York, N. Y.; Philadelphia, Pa.; Pittsburgh, Pa.; New Orleans, La.

THE QUALITY LEADER IN COMPRESSORS, PUMPS AND ROCK DRILLS

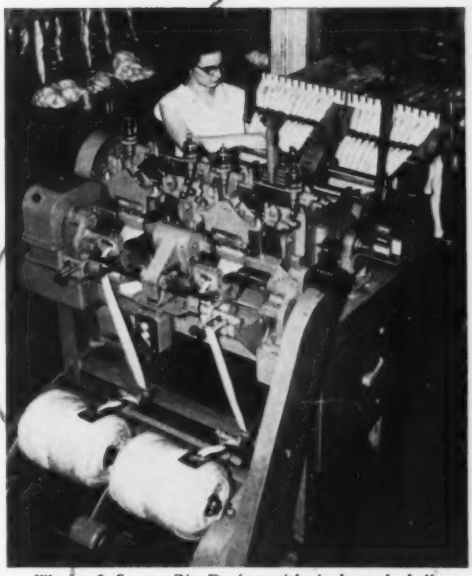
MORE YARN BETTER YARN ... with HALF as many operations!



SIX STEPS replaced by three! That's the story that comes from a production-minded mill where three operations performed by Warner & Swasey Pin Drafters added new profits in Combing and Drawing.

The results: A greatly improved yarn . . . better appearing, more even, and cleaner. And produced in greater volume with much less waste. The Pin Drafters' efficiency, based on the mill's own standards, is 93%!

And in today's tight manpower market the installation of Pin Drafters took on added importance because they required fewer operators.



Warner & Swasey Pin Drafter with single meche ball delivery in the Combing Room

WARNER & SWASEY
Cleveland
TEXTILE MACHINERY DIVISION

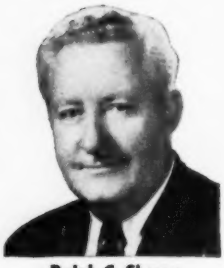
BRANCH OFFICES:
61 Rivulet St., North Uxbridge, Mass.
6910 Market Street, Philadelphia, Pa.
Candler Building, Atlanta, Ga.

YOU CAN PRODUCE IT BETTER, FASTER, FOR LESS . . . WITH A WARNER & SWASEY

Our Representatives . . . trained to serve you

We gladly maintain these men to help you get the most out of your card clothing investment. They are fully qualified to survey your cards and make recommendations for improving your work and reducing your costs. Feel free to call on your Howard man the next time you have a problem.

Harold S. Bolger
1139-51 East Chelten Avenue
Philadelphia 38, Pennsylvania
Phone GE 8-0100



Ralph C. Shorey
44-46 Vine Street
Worcester 8, Massachusetts
Phone 6-6207

K. McCoy Crytz
244½ Forsyth Street, S.W.
Box 4072
Atlanta, Georgia
Phone Walnut 5230

E. Jack Lawrence
244½ Forsyth Street, S.W.
Box 4072
Atlanta, Georgia
Phone Walnut 5230

Carl M. Moore
219-223 South Linwood Street
Gastonia, North Carolina
Phone 5-5021

Charles A. Haynes, Jr.
749 Narragansett Parkway
Gaspee Plateau
Providence 5, Rhode Island
Hopkins 1-7679

Jack Dempsey
219-223 South Linwood Street
Gastonia, North Carolina
Phone 5-5021

HOWARD BROS. MFG. CO. WORCESTER 8, MASSACHUSETTS

Southern Plants: Atlanta, Georgia and Gastonia, N. C. **Branch:** Philadelphia, Pa.

Direct Representation in Canada

A-8

. . . IT PAYS TO SPECIFY TUFFER CARD CLOTHING

Aridye
RUBINE
FD3B
Aridye
PIGMENT COLORS
Reg U S Pat Off
Interchem
Dyes
Reg. U.S. Pat. Off.
Another
INTERCHEMICAL FIRST
Introduction of Aridye Rubine FD3B makes possible the pigment printing of rich fuchsias and rubines. This new product permits color combinations never possible before with pigment colors. It is particularly effective alongside black, adding sparkle and life to the pattern. It is fast to light and washing, even in pastel shades.
Aridye Rubine FD3B is another reason why Interchemical is your most logical source for the finest textile colors.
For complete information on this new pigment color, write or phone the nearest office of:
Interchemical Corporation
Textile Colors Division
Rock Hill, S.C.
HAWTHORNE, N.J.
Pawtucket, R.I.

L. F. Dommerich & Co., Inc.

Executive and General Offices

271 MADISON AVENUE

NEW YORK 16, N. Y.

Telephone: Murray Hill 3-8650

FACTORS

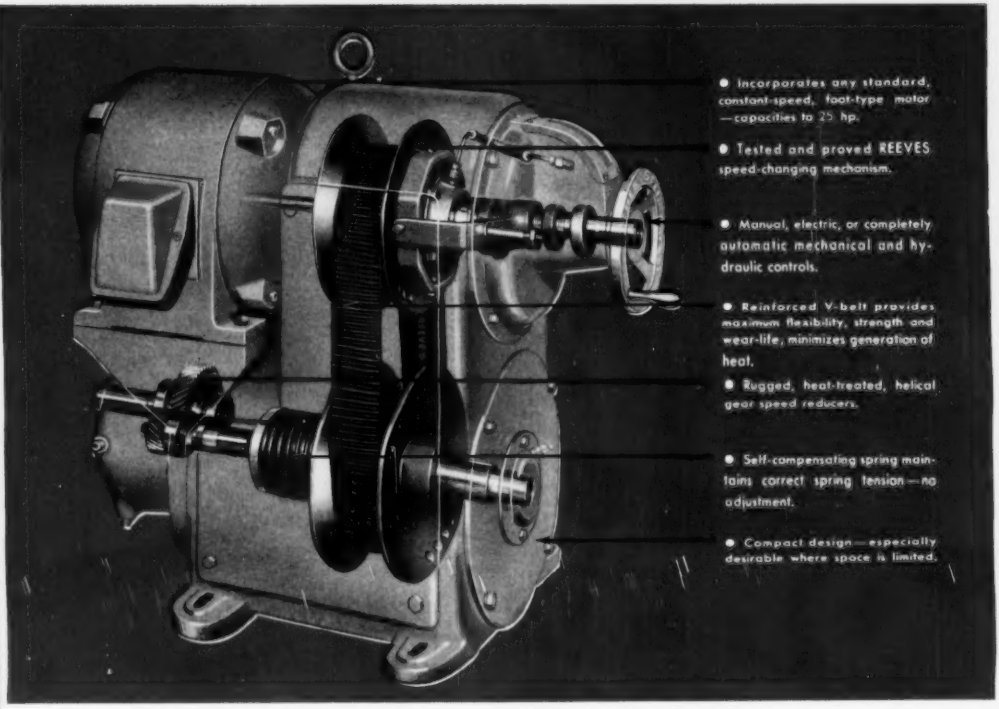
For Manufacturers and Merchants

Inquiries as to our services solicited

●

BUSINESS ESTABLISHED 1840

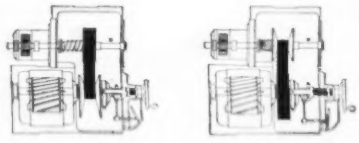
The Union of German Textile Machinery Makers
with a World Appeal
UNIONMATEX
INGOLSTADT
Spinning Machinery for Cotton – Worsted – Cut Rayon
MAK
Card-sets, Self-acting mules, Ring spinning frames
Schlafhorst
Cone-, Cheese- and Doubling Winding Machines, Automatic Pirn- and Tubular Cop Winders, Warping Machinery, Warping Creels
Sucker
Sizing and hot air drying machines, Cylinder sizing machines, Machines for winding the warp from beam to beam, Size mixing and cooking installations
B. Thies
Dyeing and bleaching plants for cheeses, Pre- and after-treatment apparatuses, Rapid dryers, Beam centrifugors, Bucking kiers, Wool-dyeing apparatuses
Astra
Weaving machines, Jacquard weaving machines, Medium and heavy felt cloth weaving machines
JOH. KLEINEWEFERS SOHNE
Calenders, Calender-bowls, Engravings, Mangles, Printing machines, Mercerizing machines, Continuous bleaching plants
MONFORTS
Finishing machinery, Making-up machinery, Corduroy and velvet finishing machinery, Double roller gins
UNIONMATEX
TEXTILMASCHINEN-UNION G.M.B.H.
FRANKFURT-MAIN
Drahtwort: Unionmatex · Tel. 9 35 22


• Incorporates any standard, constant-speed, foot-type motor —capacities to 25 hp.
• Tested and proved REEVES speed-changing mechanism.
• Manual, electric, or completely automatic mechanical and hydraulic controls.
• Reinforced V-belt provides maximum flexibility, strength and wear-life, minimizes generation of heat.
• Rugged, heat-treated, helical gear speed reducers.
• Self-compensating spring maintains correct spring tension—no adjustment.
• Compact design—especially desirable where space is limited.

Everything's built in—

and built to give your machines trouble-free, stepless speed adjustability in the

REEVES Vari-Speed Motodrive®



Minimum Speed Position — Maximum Speed Position

REEVES Vari-Speed Motodrive utilizes proved REEVES operating principle of a V-belt driving between two pairs of cone-shaped discs which are adjustable to form an infinite number of driving and driven diameters. Discs are mounted on parallel shafts. One shaft receives power at constant speed from motor —other delivers power at infinitely adjustable speed to gear reducer from which desired speed is transmitted to driven machine.

Here's a complete variable speed power plant in one, space-saving unit . . . incorporating an operating principle proved in 300,000 installations . . . ruggedly constructed for years of trouble-free service. Without stopping the machine, a turn of the REEVES handwheel or touch of a button provides the correct speed for every operation . . . enables the machine to do *more* work and *better* work at lower cost. Available in vertical and horizontal designs; capacities to 25 hp; and speed ratios as great as 10 to 1. For the machines you are now operating and the new ones you plan to buy, obtain all the benefits of stepless speed adjustability by specifying modern REEVES Vari-Speed Motodrive. Send for free catalog No. W67a-G.

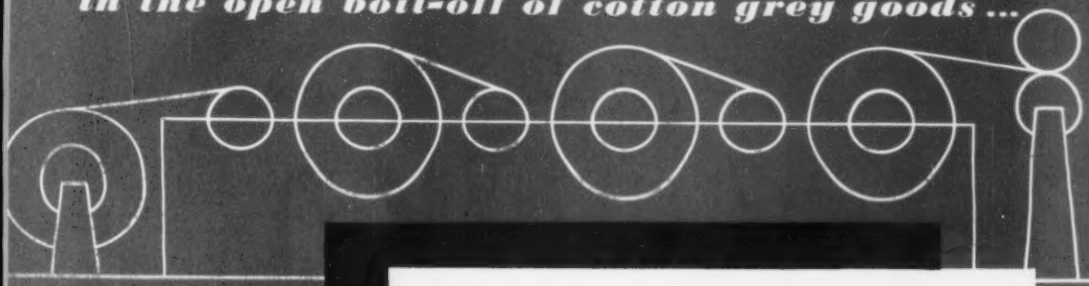
REEVES PULLEY COMPANY • COLUMBUS, INDIANA

Recognized leader in the specialized field of variable speed control

accurate · variable **REEVES** *Speed Control*

For more information, write direct or use Reader Service post card.

in the open boil-off of cotton grey goods ...



you can

Cut Costs 3 Ways

by adding ¼%

Nacconol*

AMERICA'S LEADING SYNTHETIC DETERGENT

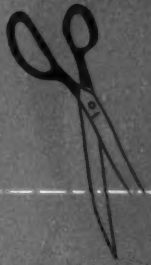
Cleaner goods in less time with lower chemical consumption . . . these worthy goals seem to be mutually contradictory. Yet the addition of ¼% NACCONOL to the boil-off solution *can give you all three desirable results simultaneously.*

Laboratory tests confirmed by practical mill runs with various boil-off solutions demonstrate these 3-way savings:

1. ***Lower Alkali Consumption***
   You can produce as clean goods with a 1% Caustic plus ¼% NACCONOL solution as with higher alkali concentrations alone.

2. ***Lower Bleach Requirements***
   Cleaner, wax-free goods produced by alkali-NACCONOL solutions minimize bleach-solution consumption.

3. ***Shorter Boiling Time***
   Satisfactory boil-off can be obtained in ⅓ to ½ less time if ¼% NACCONOL is added to a 1% Caustic solution.



SEND FOR TECHNICAL BULLETIN #311

NACCONOL IN THE OPEN BOIL-OFF OF COTTON GREY GOODS

It contains 12 pages of significant test results on this important way to save time and money on boil-off operations. Your copy of this informative bulletin, will be sent to you without cost or obligation, by writing or phoning our nearest office.

NATIONAL ANILINE DIVISION

ALLIED CHEMICAL & DYE CORPORATION

40 RECTOR STREET, NEW YORK 6, N.Y. • BOwling Green 9-2240

Boston 14, Mass., 100 Causeway St.	CApitol 7-0490	Richmond 19, Va., 8 North Fifth St.	Richmond 2-1930
Providence 3, R.I., 15 Westminster St.	DExter 1-3008	Columbus, Ga., Columbus Interstate Bldg.	Columbus 3-1529
Philadelphia 6, Pa., 200 204 S. Front St.	LOmbard 3-6307	Greensboro, N.C., Jefferson Standard Bldg.	GReensboro 2-2510
San Francisco 5, Cal., 517 Howard St.	SUtter 1-7507	Chattanooga 2, Tenn., James Building	CHattanooga 6-0347
Portland 5, Ore., 720 West Burnside St.	Beacon 1053	Atlanta 2, Ga., 264 E. Ponce Ferry Rd.	CYpress 2021
Chicago 54, Ill., The Merchandise Mart	SUperior 7-3307	New Orleans 18, La., 714 Carondelet Building	Raymond 7228
Charlotte, 1 N.C., 201 203 West First St.	Charlotte 3-8221	Toronto 2, Canada, 137-143 Wellington St. W.	Empire 4-8485

*Reg. U.S. Pat. Off.

ROBERT GAIR CO

PAPERBOARD • FOLDING

For more information, write direct or use Reader Service post card.

Textiles in GAIRVURE packages

sell on sight... build prestige with dealers and consumers

GAIRVURE multicolor cartons, for various textile products are winning enthusiastic acclaim everywhere with dealers, consumers and manufacturers. These smartly designed textile packages are bringing forth these favorable comments . . .

DEALERS . . . "GAIRVURE colorful cartons not only provide a new, greatly improved method of sending textiles to market but also offers a dramatic opportunity for displaying textiles on the counter, in showcases and in windows. They help to increase sales, prestige and profits."

CONSUMERS . . . "I enjoy shopping for various kinds of TEXTILES in these practical and beautiful packages. They have simplified the purchasing of textiles, not only for myself, but for my husband and the children. Furthermore, they are convenient to carry home, and so ideal for gifts."

MANUFACTURERS . . . "GAIRVURE cartons are stimulating our sales and dealers are elated over our new method of packaging and merchandising our textile products."

When the TEXTILE INDUSTRY goes to market in these GAIRVURE colorful cartons they'll understand the meaning and value of our slogan "GAIRVURE SELLS ON SIGHT."

SEND FOR BROCHURE AND SAMPLES

Upon request we will gladly send descriptive literature and samples of multicolor GAIRVURE. Write today.

Textile **SHIPPING CONTAINERS**

are produced in strategically located Gair Plants. Gair service is always dependable.

MPANY, INC., 155 EAST 44th ST., NEW YORK • TORONTO

CARTONS • SHIPPING CONTAINERS

Not Sometimes-But Always

You can draw a winning poker hand sometimes, but you can always draw lucky numbers if you buy Ashworth Card Clothing. The lucky numbers are 4-6-7 and they stand for:—

4 FACTORIES (Fall River, Worcester, Philadelphia, Greenville) which assure you of an uninterrupted supply of card clothing. Decentralized and strategically located, these factories can "pinch hit" for each other in emergencies.

6 REPAIR SHOPS (Fall River, Philadelphia, Charlotte, Greenville, Atlanta, Dallas [Textile Supply Co.]), which assure convenient, economical and prompt reclothing and repair service.

7 DISTRIBUTING POINTS (Fall River, Worcester, Philadelphia, Charlotte, Greenville, Atlanta, Dallas [Textile Supply Co.]), which make Ashworth products and consultation service more readily available.

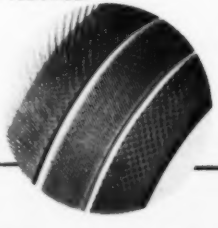
AND DON'T FORGET "90". More than 90 years of experience in cards and card clothing — your guide to a consistently high standard of quality in manufacture and efficiency in performance.

Buy Ashworth Card Clothing and be lucky ALWAYS.

PRODUCTS AND SERVICES

. . . Card Clothing for cotton, wool, worsted, silk, rayon and asbestos cards and for all types of napping machinery. Brusher clothing and card clothing for special purposes. Lickerin wire and garnet wire. Sole distributors for Platt's metallic wire. Lickerins and top flats reclothed.

ASHWORTH BROS., INC.
AMERICAN CARD CLOTHING CO. (Woolen Division)
Fall River • Worcester • Philadelphia • Charlotte • Greenville
Atlanta • Dallas (Textile Supply Co.)



Ashworth **CARD CLOTHING**

Four Louis Allis Type KWA "Soft Start" Motors Driving Roving Frames. Note the small "across-the-line" starters.

Reduce "Ends Down" Time with

LOUIS ALLIS "Soft Start" Motors

Here's another Louis Allis "first" — the motor specifically designed for roving frames, special spinning frames, spoolers, quillers and all applications requiring a smooth, soft start. It reduces installation costs and "ends down" time for increased production.

Special electrical design gives smooth, soft start, gradually increasing acceleration torque. Acceleration is slow, stepless, gradual.

Across-the-line starting is possible due to the special electrical design.

Special motor connections furnish higher torque for "break-in" period. Leads can then be easily changed to the lower torque connection to fully utilize the "soft start" feature.

Excellent jogging characteristics. Design provides accurate, positive positioning.

Louis Allis self-cleaning construction throughout. Smooth, streamlined contours do not let dust or lint adhere to any motor surface.

Sizes and speeds to fit every textile machine application, 2 horsepower to 7.5 horsepower, 900 and 1200 RPM are standard. Other sizes and speeds available on request.

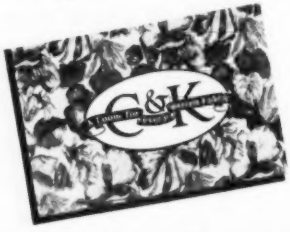
The Louis Allis "Soft Start" Self-Cleaning Textile Motor is the drive you've been looking for. Its slow, easy start without need for an expensive reduced voltage starter — its other outstanding features — make it the answer to *your* drive problems. Write today for further information or contact the Louis Allis district office nearest you.

TE-101

THE LOUIS ALLIS CO., Milwaukee 7, Wisconsin

Standard or special — we build it. Whatever electrical or mechanical modifications or features you need, there is a Louis Allis motor that will do your toughest jobs better.

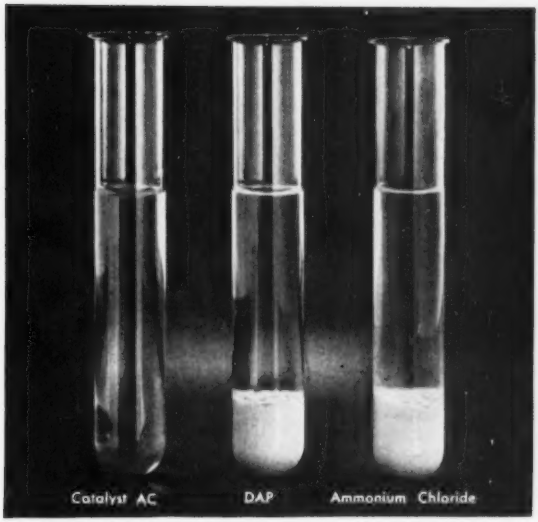
This
Invisible Trademark
stands back of the Trademarks
of the
Finest Rugs and Carpetings



Crompton & Knowles LOOM WORKS

WORCESTER 1, MASSACHUSETTS, U. S. A.

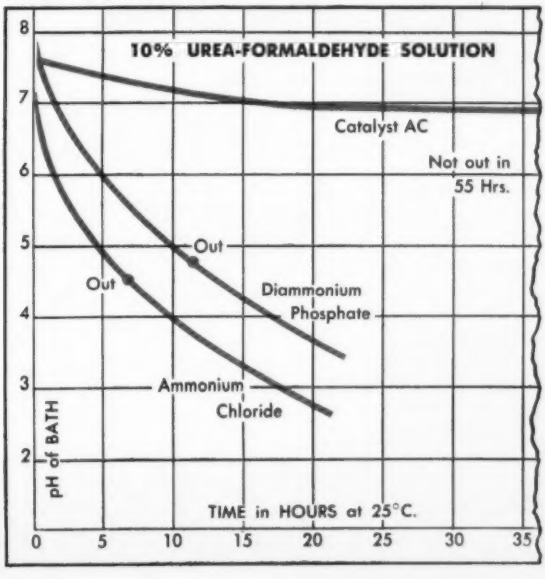
PHILADELPHIA, PA. • CHARLOTTE, N. C. • ALLENTOWN, PA. • CROMPTON & KNOWLES JACQUARD & SUPPLY CO., PAWTUCKET, R. I.



Photograph demonstrates "snowing out" effect of DAP and ammonium chloride shown graphically in chart below. Ten percent solutions of urea-formaldehyde (Monsanto's Santaloom) and these catalysts were allowed to stand at 25°C., as was also a similar solution containing Catalyst AC. In the presence of DAP and ammonium chloride, resin particles settled out after only 10½ and 6½ hours respectively, while sample containing Catalyst AC remained clear and in complete solution for more than two days.

●

Chart shows "pH Change with Time"—10% Urea-Formaldehyde with three resin catalysts at 25°C. In bath catalyzed with ammonium chloride, pH dropped from 7.0 to 4.5 in 6½ hours, at which time resin settled out. In similar experiment with DAP as catalyst, resin particles "snowed out" when pH had dropped to 4.8 after 10½ hours. In bath containing resin and Catalyst AC, pH dropped only slightly below 7.0 and *resin had not begun to settle out after 55 hours.*



LONGER LIFE

FOR YOUR RESIN BATHS

. . . when you use Catalyst AC!

Take just a moment—think what it will mean to your own operations to have your resin baths remain stable and uniform for 24 hours or more—without refrigeration! Then ask your Monsanto representative (or write direct) for the full story on Catalyst AC.

Positive results of laboratory and plant applications over the past three years . . . with both urea and melamine resins . . . have proved that Catalyst AC offers several distinct advantages over other available compounds:

Stable Bath assures uniformity of resin application and retention.

No Refrigeration needed to hold down acidity and lengthen bath life.

Objectionable Odors Minimized . . . since no ammonium salts are present.

Proved Performance in producing desired qualities, such as washfastness and softer hands.

These benefits of Catalyst AC make it the outstanding resin catalyst available today . . . Why not give it a trial in your plant?

Santaloom: Reg. U. S. Pat. Off.

FOR MORE INFORMATION, WRITE
MONSANTO CHEMICAL COMPANY
TEXTILE CHEMICALS DEPT.
BOSTON 49, MASS.

MONSANTO
CHEMICALS – PLASTICS

SERVING INDUSTRY . . . WHICH SERVES MANKIND

"Tycol Armitage boosts bearing life... smooths the way for faster, heavier loads"

Of course! Tycol Armitage Bearing Grease "stays put" ... keeps anti-friction bearings running smooth and cool. Its high stability makes it suitable for sealed anti-friction bearings that must last the life of the equipment.

Tycol Armitage possesses exceptional resistance to oxidation.

The dependable lubricating ability of this quality grease lengthens bearing life and cuts down maintenance costs.

Call your nearest Tide Water Associated office for further information.

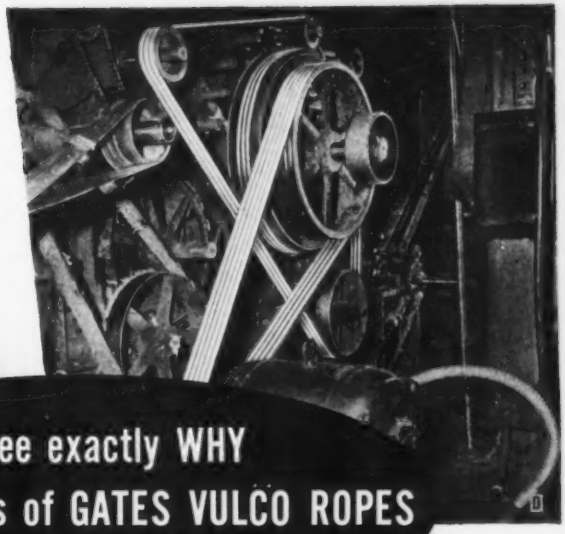
SEND FOR A FREE COPY OF "TIDE WATER ASSOCIATED LUBRICANIA"

TYCOL
INDUSTRIAL LUBRICANTS

Boston · Charlotte, N. C. · Pittsburgh
Philadelphia · Chicago · Detroit
Tulsa · Cleveland · San Francisco

TIDE WATER ASSOCIATED OIL COMPANY
17 BATTERY PLACE - NEW YORK 4, N. Y.

Gates Vulco Ropes — replacing flat belts on this Garnett machine — saved Bender Bros., Inc., of Camden, N. J. over $1,000 a year in maintenance expense.



Let's see exactly WHY the Concave Sides of GATES VULCO ROPES mean lower V-Belt Costs!

Every engineer knows how a V-belt *changes shape* when it bends around a pulley.

The top of the belt is under tension—making it grow *narrower*.

The body is under *compression*, causing the sides to bulge out!

Look at figure 1-A in the diagrams, herewith. There you see how a *straight sided* V-belt is forced to bulge in its sheave-groove—and this bulging naturally causes extra wear along the middle of the sides as indicated by the arrows.

Now look at the figure 2-A. There you see how the precisely engineered Concave Sides fill out to an exact fit in the sheave groove.

Clearly, the Concave Sides press *evenly* against the V-pulley. This means uniform wear; longer life! The Concave Sides have *full traction;* wear longer because of *full contact!*

To sum up: The Concave Sides of Gates Vulco Ropes (U.S. Patent No. 1813698) give you (1) Less wear, (2) More pulley contact, (3) More sure power transmitted when needed!

Only V-belts made by Gates are built with concave sides. Whenever you buy V-Belts, be sure you get the V-Belt with the Concave Sides—The Gates Vulco Rope!

What Happens When a V-Belt Bends

How Straight-Sided V-Belt Bulges in Sheave-Groove. Sides Press Unevenly Against V-Pulley Causing Extra Wear At Point Shown by Arrows.

The Concave Sides Fill out to a Precise Fit in the Sheave Groove. No Side Bulge! Sides Press Evenly Against the V-Pulley—Uniform Wear—Longer Life!

CS-521

World's Largest Maker of V-Belts

Gates®

Hose V-Belts Molded Rubber Goods for Industry

VULCO ROPE DRIVES

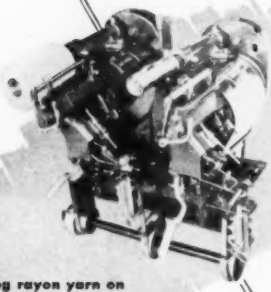
ENGINEERING OFFICES AND JOBBER STOCKS IN ALL INDUSTRIAL CENTERS

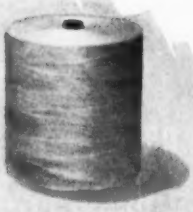
THE GATES RUBBER COMPANY • DENVER • U•S•A

For more information, write direct or use Reader Service post card.

FOSTER MODEL 75 - *A Versatile Precision Winder*

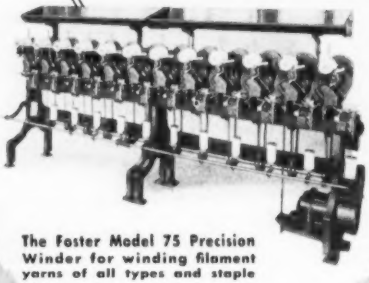
Can YOU use it for one or more of these purposes?





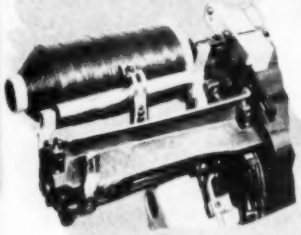
6 inch parallel tube of cotton yarn produced on Model 75.

Winding rayon yarn on 1⅛" dia. dye tubes by means of special holder and pressure roll assembly, which makes possible very soft packages. (No. 5 durometer reading)



The Foster Model 75 Precision Winder for winding filament yarns of all types and staple yarns.

Straight edge cone of filament yarn wound on Model 75. Weights up to 12 lbs. with some types of yarn, such as rayon tire cord yarn.



Winding King Spool by means of special attachment which utilizes time saving combination pressure roll and guide.

Pineapple cone of filament yarn produced with special attachment. Preferred for Nylon yarn.

FOSTER MACHINE CO.
WESTFIELD, MASS., U. S. A.

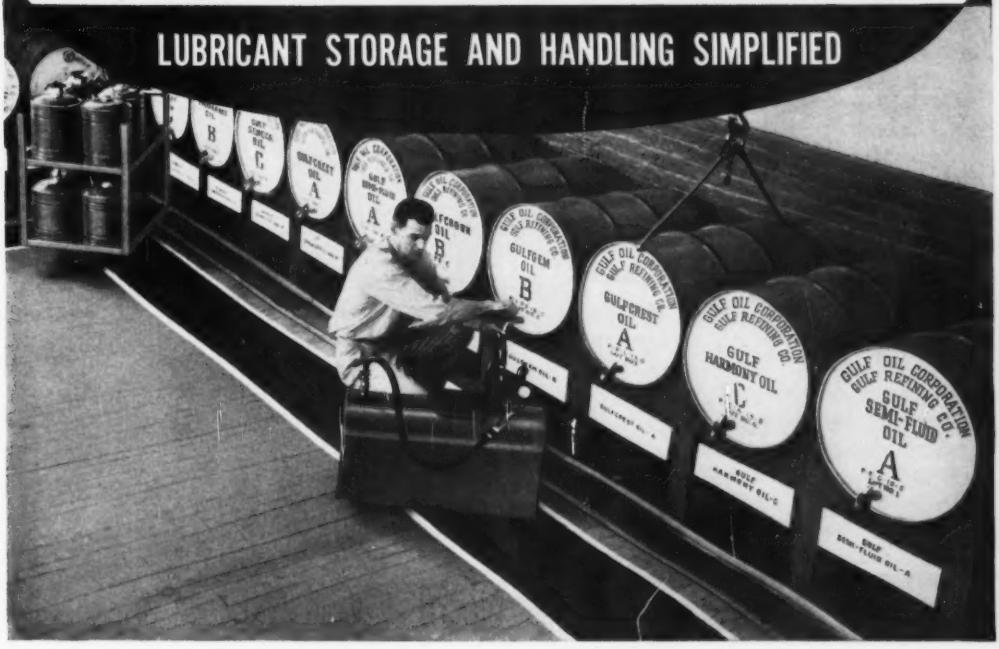
Southern office, Johnston Bldg., Charlotte, N. C. — Canadian Representative, Ross Whitehead & Co. Ltd., 1475 Mountain St., Montreal, Que. — European Representative, Muschamp Taylor, Ltd., Manchester, England.

For more information, write direct or use Reader Service post card.

NUMBER 2 OF A SERIES

How Gulf Periodic Consultation Service helps textile mills cut lubrication and maintenance costs

LUBRICANT STORAGE AND HANDLING SIMPLIFIED



A logical source of information and help on any problem that involves lubricants or lubrication is a trained Gulf Lubrication Engineer. You'll find he does more than simply recommend the proper oils and greases for every type of equipment in your mill. He offers effective help on every phase of lubrication!

When, for example, he sums up his recommendations of oils and greases, he keeps two things foremost in his mind: (1) the individual requirements of each piece of machinery; (2) the problem of storing and handling lubricants. He balances these two factors, one against the other, and reduces as far as practical the number and types of lubricants stocked and handled. In one prominent Southern textile mill the number of lubricants was reduced by more than one-half, which meant a considerable savings in the cost of lubrication. Then too, he'll help you improve your oil house and your system of dispensing oils and greases.

This is just one phase of Gulf Periodic Consultation Service. For additional information on this advanced plan, send the coupon below.

GULF SERVES INDUSTRY

Gulf Oil Corporation · Gulf Refining Company TW
719 Gulf Building, Pittsburgh 30, Pa.

Please send me, without obligation, a copy of the booklet "Gulf Periodic Consultation Service."

Name.....

Company.....

Title.....

Address.....

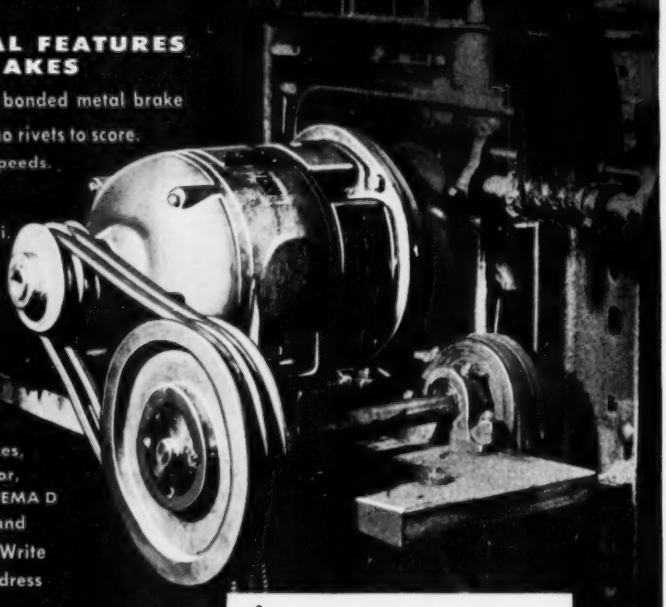
For more information, write direct or use Reader Service post card.

The ELLIOTT Crocker-Wheeler brake motor *says STOP to product damage*

This narrow fabric loom is making zipper tape, and when the loom is stopped for any reason "stop-marks" would normally appear on the tape, caused by coasting of the loom. This is prevented by the Elliott Crocker-Wheeler brake motor, which halts the operation in a single revolution. No coasting, no "stop-marks", an unblemished product.

SOME EXCEPTIONAL FEATURES OF C-W BRAKES

Brake discs are all metal, with bonded metal brake linings. Metal to metal contact, no rivets to score. Sustains higher pressures and speeds. Wear is largely eliminated. Discs are unaffected by heat, cold, dampness, salt water, fungi. They dissipate heat most rapidly. Unit is compact, and fits in limited space. Wrap-around cover permits easy access all around. Removable without need for extra end space. Manual release optional. C-W brakes are available in eight sizes, as part of any C-W integral motor, or separately for mounting on NEMA D flange motors frames 203-326, and C face motors, frames 364-405. Write for the Brake Motor Bulletin—address Elliott Company, Jeannette, Pa.



Elliott Crocker-Wheeler brake motor on loom at plant of Wm. T. Carson Co., Philadelphia. Note how compactness of the unit enables it to fit into close quarters. Brake can be inspected while operating by removing wrap-around cover.

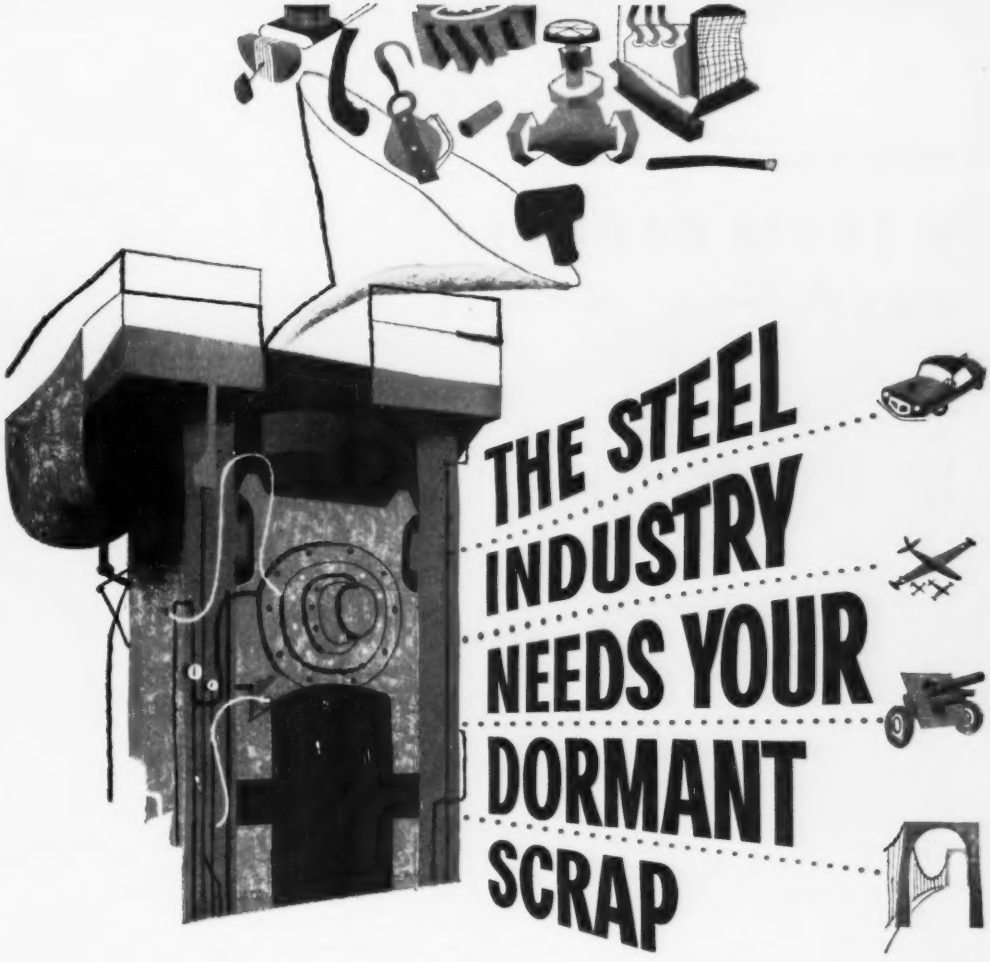
ELLIOTT Company
CROCKER-WHEELER DIVISION
AMPERE, N. J.

Branch Offices and Representatives in Principal Cities

Elliott APPROVED service shops cover the country • GENERAL OFFICES AND MAIN PLANT, JEANNETTE, PA.

W2 5

For more information, write direct or use Reader Service post card.



THE STEEL INDUSTRY NEEDS YOUR DORMANT SCRAP

Steel scrap is needed right now. Without it the steel industry can't produce the steels needed for *your* requirements. *This is an emergency call. Dig up your dormant scrap.*

LOOK FOR OBSOLETE, DORMANT MACHINERY, TOOLS, JIGS, DIES, FIXTURES, OR ANY OTHER METAL EQUIPMENT, WHICH YOU NO LONGER NEED.

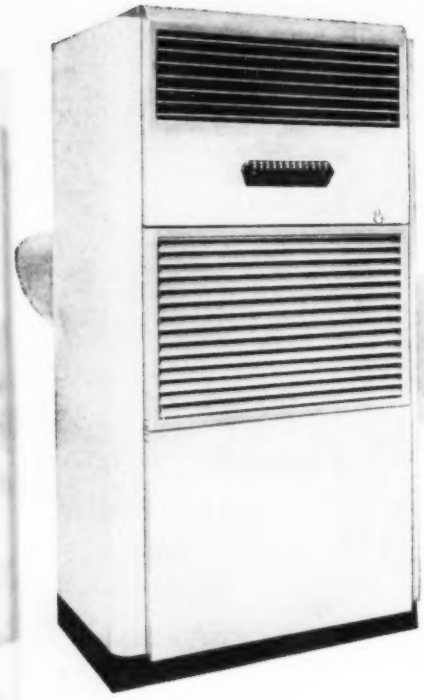
CRUCIBLE first name in special purpose steels

52 years of Fine steelmaking

CRUCIBLE STEEL COMPANY OF AMERICA GENERAL SALES AND OPERATING OFFICES, OLIVER BUILDING PITTSBURGH, PA.

For more information, write direct or use Reader Service post card.

There's a superb WESTINGHOUSE UNITAIRE® CONDITIONER



in the size you need...

available now...

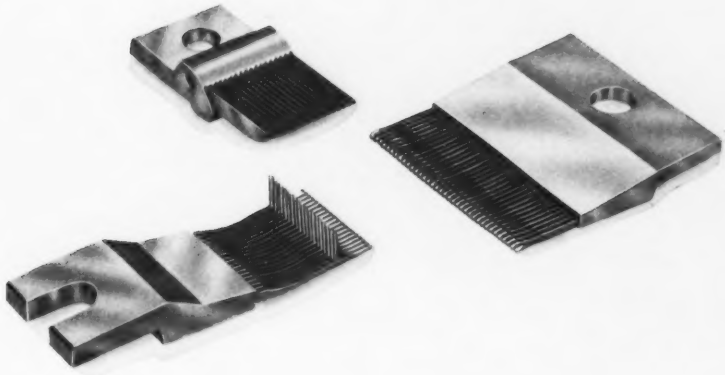
. . . through your Westinghouse Air Conditioning Distributor. The UNITAIRE is completely factory-assembled and ready for use. Installation is simple and fast. It does not require hard-to-get materials. These units are adaptable, too. They can be applied singly or in multiple to condition anything from a single room to an entire floor or building.

Best of all, the UNITAIRE is the best looking, most reliable air conditioner you can buy. One reason is the famous Westinghouse hermetically-sealed compressor. There are other important reasons your Westinghouse Air Conditioning Distributor will be glad to explain. Call him today; he's listed in the Yellow Pages of your telephone directory. Or, write for free booklet to Westinghouse Electric Corp., Air Conditioning Division, Hyde Park, Boston 36, Mass.

For OFFICES
STORES • FACTORIES
RESTAURANTS • HOMES
LABORATORIES • HOTELS
HOSPITALS

J-80255

YOU CAN BE SURE... IF IT'S **Westinghouse**



Torrington Announces a New Complete Leading Service for Raschel Machines

Torrington Needles Precision-Mounted In Cast Lead Bases Now Available; Also Complete Re-Needling Service.

As a further step in providing our customers with the most complete and efficient service possible, we now offer Torrington latch needles, precision-mounted in lead castings for raschel machines. These leads are precisely dimensioned and smoothly finished to assure exact spacing and alignment in the needle bar. Leaded thread guides and other leaded parts are also available.

Result: users of raschel machines can now rely on Torrington to safeguard *every* phase of their needling operations. Your nearby Torrington representative will be glad to give you full details of the benefits of this new service. Call him today.

The Torrington Company

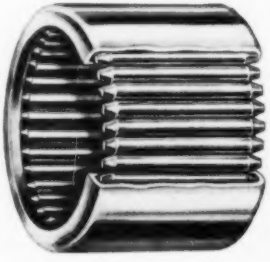
Torrington, Conn., U.S.A. • Established 1866

Branches: New York • Philadelphia • Chicago • Boston • Greensboro, N. C. • St. Louis • Toronto, Canada • *Pacific Coast Representative:* E. G. Paules, 1762 W. Vernon Ave., L. A. 37, Calif.

when high capacity pays off...

Torrington Needle Bearings are designed to handle heavy loads. A full complement of small diameter rollers distributes the load evenly over a large area. Thus—for a given O.D.—a Needle Bearing has greater rated radial load capacity than any other type of anti-friction bearing.

Other Needle Bearing advantages—compact size, light weight, ease of installation and maintenance—pay off, too. So let our engineers help you—as they have many others—take full advantage of Torrington Needle Bearings in *your* product.



THE TORRINGTON COMPANY

Torrington, Conn. South Bend 21, Ind.

District Offices and Distributors in Principal Cities of United States and Canada

TORRINGTON NEEDLE BEARINGS

Needle • Spherical Roller • Tapered Roller • Straight Roller • Ball • Needle Rollers

S-L-T

SACO-LOWELL-TORRINGTON
NEEDLE BEARING
TOP ROLLS

STANDARD EQUIPMENT
ON ALL
SACO-LOWELL
GWALTNEY
SPINNING FRAMES

- NO WEEKLY OILING
- NO SPOILED YARN
- NO ROLL PICKING
- NO WASTED OIL

S-L-T TOP ROLLS are manufactured by THE TORRINGTON COMPANY, Torrington, Conn., and are available exclusively through SACO-LOWELL

the TORRINGTON co.
TORRINGTON • CONNECTICUT

Announcing the

SACO-LOWELL

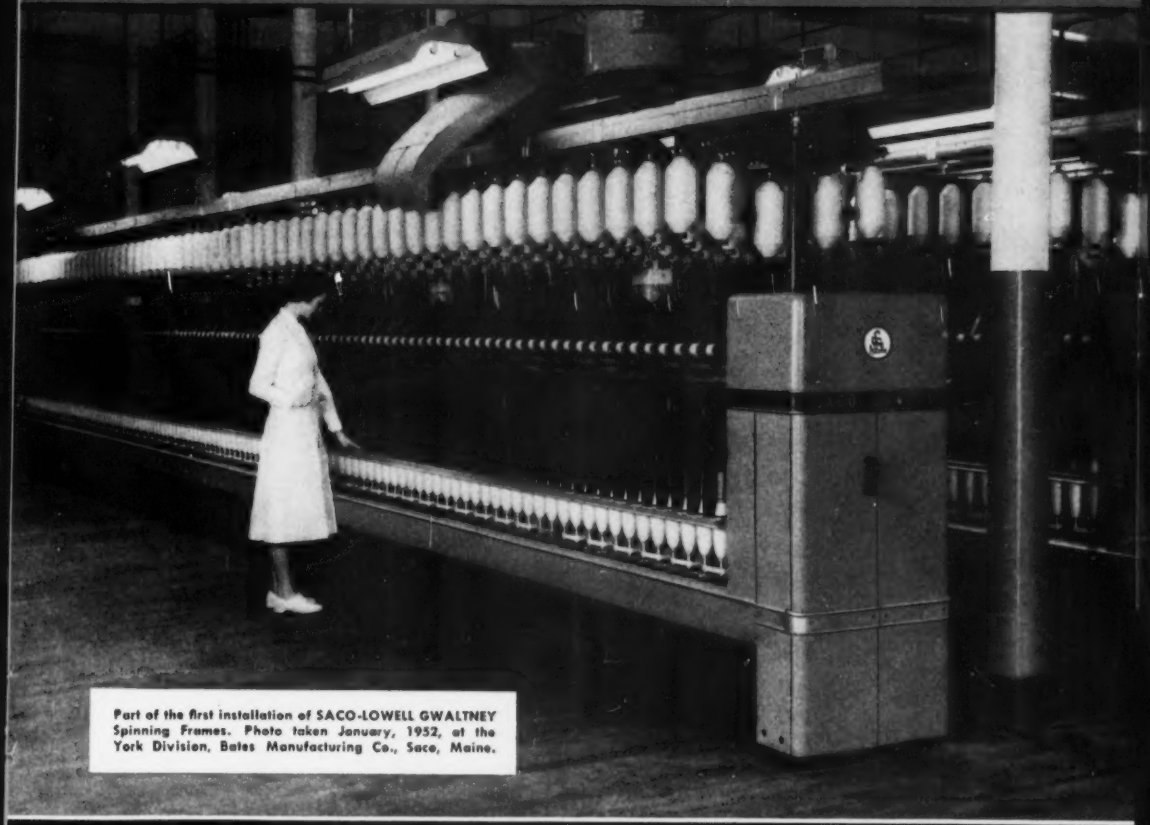
GWALTNEY

SPINNING FRAME

The only revolutionary development in spinning for more than 100 years

ENGINEERED AND BUILT FOR 1952 COSTS BY...

A COMPLETELY NEW PRINCIPLE OF SPINNING



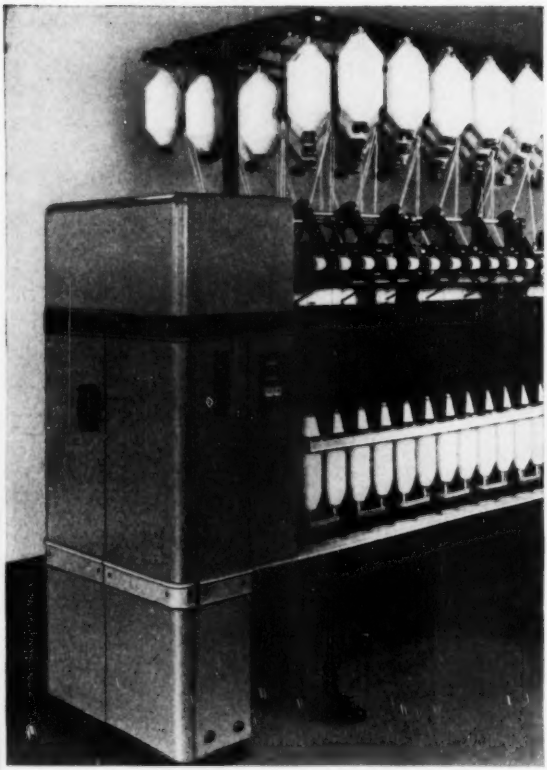
Part of the first installation of SACO-LOWELL GWALTNEY Spinning Frames. Photo taken January, 1952, at the York Division, Bates Manufacturing Co., Saco, Maine.

SACO-LOWELL

60 BATTERYMARCH STREET, BOSTON 10, MASS.

Shops at BIDDEFORD MAINE and SANFORD N C

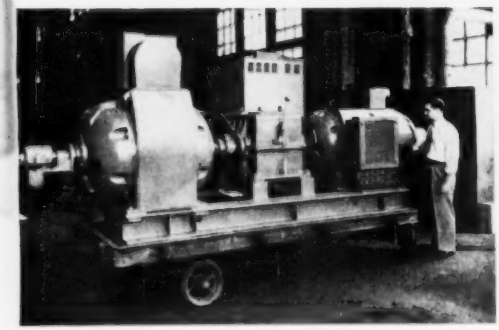
SALES OFFICES CHARLOTTE • GREENVILLE • ATLANTA



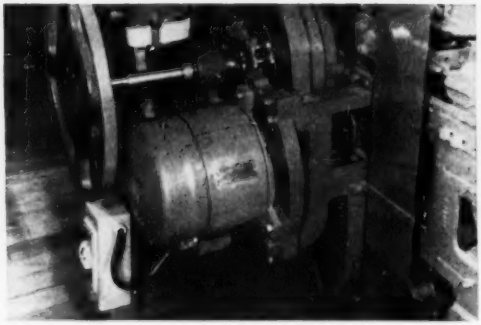
New Saco-Lowell spinning frame powered by compact G-E drive

To meet their specific requirements for the new Gwaltney spinning frame, Saco-Lowell needed totally-enclosed water-cooled motors with motor-mounted brake, and special motor starters. General Electric application and design engineers were called in. They met the company's requirements with newly-developed compact units specially-designed to fit into closely restricted areas. The water-cooled motors have lower surface temperatures and help reduce the load on mill air-conditioning systems. 654-22

G. E. works with mills and machinery manufacturers to improve electric drives



CO-ORDINATED DRIVE SYSTEM specially designed for spinning synthetic fibres holds 1/10 of one per cent accuracy over a wide speed range.



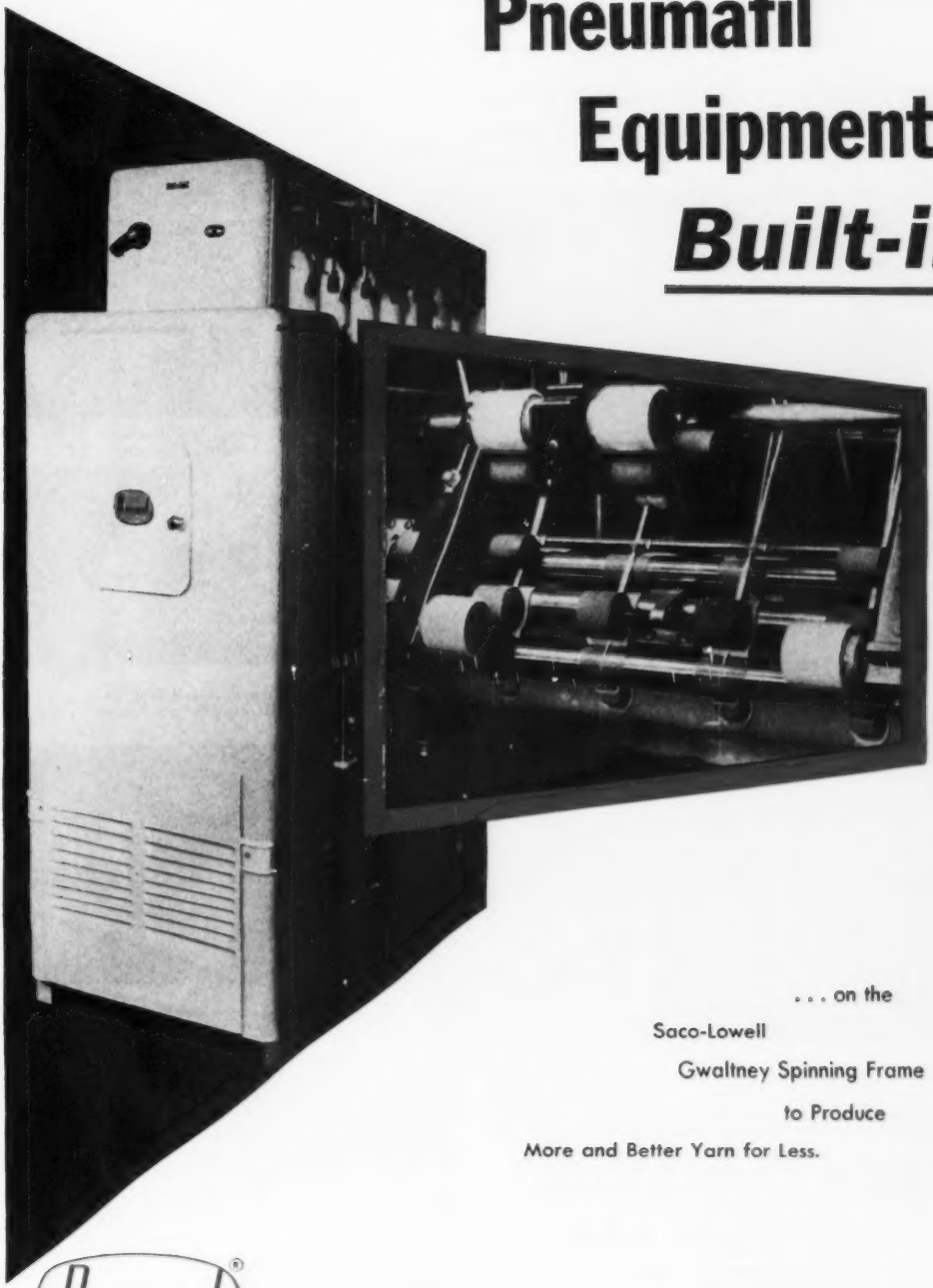
FLYWHEEL LOOM MOTORS, developed through co-operation with loom builders, deliver superior performance for selected high speed looms.

These are just two examples of G-E system engineering at work in the textile industry. For help with *your* drive problems—or any electrical question—call in your G-E textile mill specialist. *General Electric Company, Schenectady 5, N. Y.*

GENERAL ELECTRIC

For more information, write direct or use Reader Service post card.

Pneumafil Equipment *Built-in*



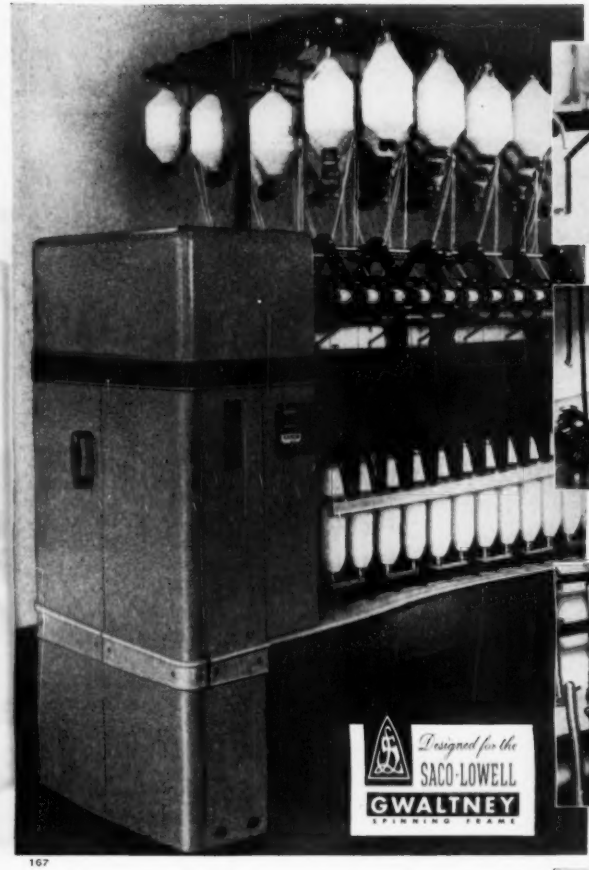
. . . on the
Saco-Lowell
Gwaltney Spinning Frame
to Produce
More and Better Yarn for Less.

PNEUMAFIL®

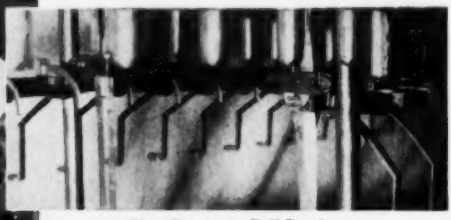
CORPORATION • **2516 Wilkinson Blvd., Charlotte, N. C.**
Sales Offices: Boston—Philadelphia—Atlanta

For more information, write direct or use Reader Service post card.

New Departure... is proud to play a part in the new Saco-Lowell Gwaltney Spinning Frame — in the positions indicated:

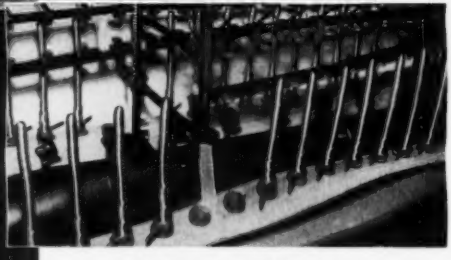


167

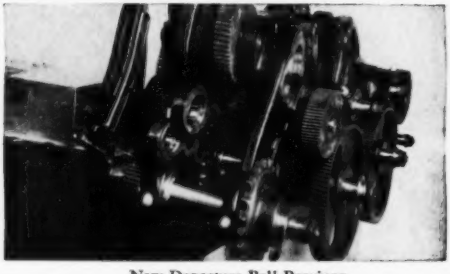


New Departure Ball Bearings in Guide Rolls on Lift Rods

New Departure Ball Bearings in each Tension Pulley



New Departure Ball Bearings in each New Era Spindle



New Departure Ball Bearings in the Drive End Assembly

Nothing Rolls Like a Ball...

NEW DEPARTURE BALL BEARINGS

NEW DEPARTURE • DIVISION OF GENERAL MOTORS
BRISTOL, CONNECTICUT

Designed for the

SACO-LOWELL

GWALTNEY

A-P-T- *Synthetic* BOBBIN

Metal tip, plastic seat and laminated barrel combined, by patented "Plasti-weld" method, into a homogeneous unit of permanent precision.

Designed for and used on the GWALTNEY FRAME

A-P-T

American Paper Tube Co.

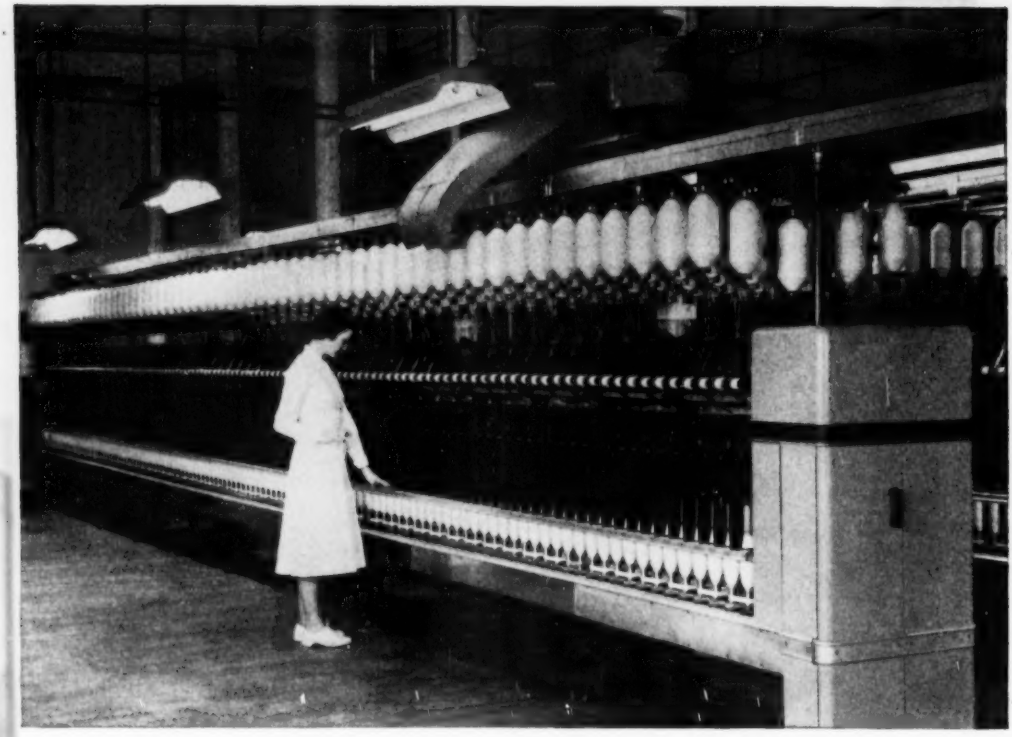
ESTABLISHED 1898

WOONSOCKET, R. I. GREENVILLE, S. C.

CANADIAN REPRESENTATIVE,
HUGH WILLIAMS & CO., TORONTO, CANADA

54 YEARS OF RESPONSIBILITY FOR EFFICIENT AND ECONOMICAL CARRIER SERVICE

For more information, write direct or use Reader Service post card.



Parks-Cramer Frame and Up-draft Cleaning as developed and engineered for installations of the new Saco-Lowell Gwaltney Spinning Frame.

Thorough automatic cleaning of frame and overhead surfaces.

More than 17,000,000 spindles of all types now served by Parks-Cramer Traveling Cleaners.

Parks-Cramer Company

Fitchburg, Mass. Charlotte, N. C.

SPECIAL MOTOR
Solves Space Problem

WATER-COOLED ALLIS-CHALMERS MOTOR POWERS NEW SACO-LOWELL SPINNING FRAME

GREATER SPEED, SMOOTHER OPERATION, SMALLER SIZE, BETTER APPEARANCE, these were the objectives of years of research that have produced the new Saco-Lowell Spinning Frame. But attaining these objectives created a problem in the drive. Reducing the size of the machine meant that the motor had to deliver more power on a smaller frame than any other standard motor. And the enclosure which gives this spinning frame its smooth, modern appearance also reduces the flow of air around the motor compared to the usual method of mounting the motor in the aisle. This makes it even more difficult to increase the motor rating.

Saco-Lowell turned to Allis-Chalmers, with wide experience in textile machinery drives, for the solution to this problem. Allis-Chalmers engineers designed a water-cooled motor which delivers the required horsepower on a frame smaller than standard. The motor has characteristics specially suited to the application, high efficiency, and protection against overheating due to lack of water. A 50 foot-pound electrically operated brake is motor mounted.

Allis-Chalmers engineers have provided the drive know-how for many of the industry's advanced developments. If you have a problem involving control, motors, or *Texrope* V-belt drives, get in touch with the textile specialist in your Allis-Chalmers District Office or write Allis-Chalmers, Milwaukee 1, Wisconsin.

A-3642

Texrope is an Allis-Chalmers trademark.

ALLIS-CHALMERS

A-C ALLIS-CHALMERS

COMPLETE SERVICE . . . *From Power Line to Machine*

DRY TYPE TRANSFORMERS — CONTROL — MOTOR — TEXROPE V-BELT DRIVES

For more information, write direct or use Reader Service post card.

Here's how it's done: All tubes are built to the same inside dimensions, while the outside diameter is selected in accordance with individual yarn requirements. Another problem solved . . . the American way.

For the New Era Spindles on the Saco-Lowell GWALTNEY Spinning Frame, we have designed and patented a wood tube, top suspension drive, which permits *one size of spindle* to be used regardless of yarn count or ring size.

Designed for the
SACO-LOWELL
GWALTNEY
SPINNING FRAME

We invite inquiries on all types of bobbins and spools for cotton, wool, silk or rayon.

AMERICAN BOBBIN CO.

LEWISTON MAINE

ALEMITE HYDRAULIC LUBRICATION

Guards 28 Vital Points

on the *NEW*

SACO-LOWELL
GWALTNEY
SPINNING FRAME

THE MEN OF SACO-LOWELL – like skilled machinery builders everywhere – know that more is demanded of a new machine than just increased production.

In building the great new Gwaltney Spinning Frame, the Saco-Lowell engineers aimed at more. They wanted better quality of output, greater economy, absolute dependability, finally – *less maintenance*.

That is why proper, foolproof lubrication was considered all-important. Figured as a prime consideration during weeks and months of sustained planning effort, from the first blueprints to the final assembly and testing. The result: Saco-Lowell selected Alemite Hydraulic Lubrication for 28 vital points in the new spinning frame.

Why the choice of Alemite? Undoubtedly because of the positive, unfailing lubrication protection that Alemite brings – has brought to all industry through 34 years of lubrication leadership.

In your machines, as in this great Saco-Lowell machine – everywhere – wherever metal touches metal – you find Alemite fighting friction. Alemite lubricants. Alemite fittings and systems. Alemite equipment. Making more production possible. Making *all* production *more* profitable!

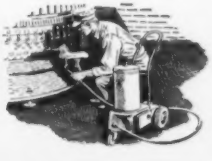
ALEMITE
REG. U.S. PAT. OFF.

Pioneer and Leader in Lubrication Progress

Alemite Cuts Costs 3 Ways

1. In transferring lubricants . . . cuts man-hours 63% for every 100 pounds transferred. Eliminates mess, costly contamination.

2. In loading grease guns . . . saves 3¾ man-hours for every 100 pounds of lubricant loaded into hand guns.



3. In applying lubricants . . . saves up to 23.9 man-hours for every 100 pounds of lubricant applied to bearings.

FREE! **VALUABLE BOOKLET**

"11 Ways to Cut Production Costs" . . .
(Simply attach to your letterhead)

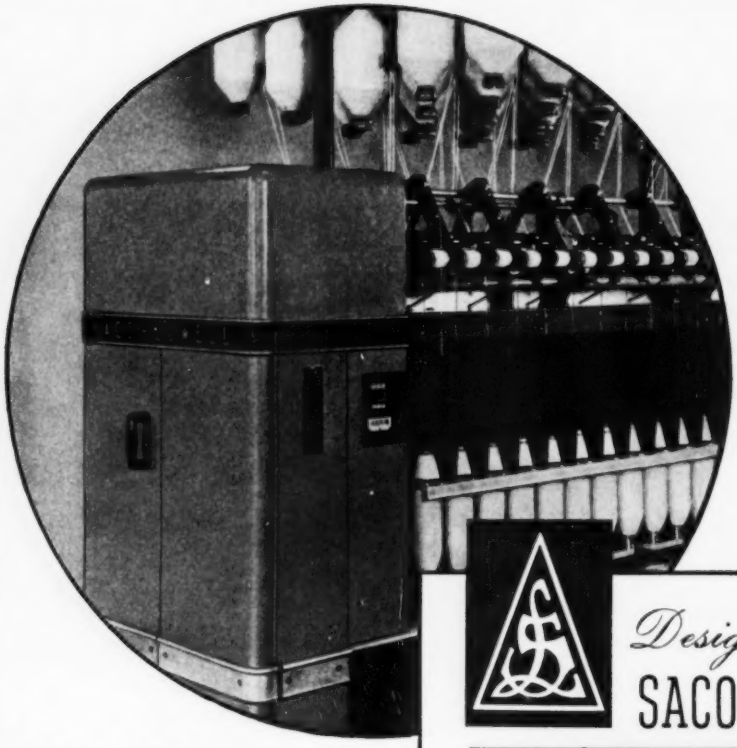
ALEMITE, Dept. J-42
1850 Diversey Parkway, Chicago 14, Ill.

We'll include facts on the new Alemite Oil-Mist System, too. (OIL-MIST atomizes oil into mist, circulates it to bearings under pressure. Increases life of bearings as much as 17½ times.)

Name .....

Company .....

City ..... State .....



Designed for the
SACO-LOWELL
GWALTNEY
SPINNING FRAME

Beautifully balanced design with HYATT cylinder shaft bearings

Saco-Lowell engineers "hewed to the line" in demanding that every component part of their great new machine be in keeping with their advanced spinning fundamental.

That is why they selected Hyatt Roller Bearings for the cylinder shaft positions. Housings and bearings are as simple and correct as the spinning principle of the frame itself. The bearings include these features:

1. Absolute minimum number of parts.
2. Maximum ease of assembly.
3. Maximum load-carrying and life characteristics.
4. Almost perfect concentricity.
5. Very low friction coefficient.
6. Adequate lubricant space and sealing.
7. Complete elimination of unnecessary gadgets such as adapters, collars, locking devices, set screws.
8. Sound bearing engineering principles proved by long experience.
9. High quality precision
10. Over-all moderate cost.

These same advantages will be found in Hyatt applications to other preparatory machinery as well as weaving and finishing equipment. Hyatt Bearings Division, General Motors Corporation, Harrison, N. J.

HYATT ROLLER BEARINGS

ALCOA
salutes

THE GWALTNEY SACO-LOWELL
Spinning Frame

The use of Alcoa Aluminum in the building of this revolutionary new yarn spinning equipment, lowers handling and machining costs and increases speed of assembly. Alcoa Extruded Shapes, used for many applications, eliminate building up sections by costly fabrication and joining. Aluminum's resistance to corrosion and natural lustrous appearance makes it ideal for trim applications.

ALUMINUM COMPANY OF AMERICA
1867D Gulf Building • Pittsburgh 19, Pennsylvania

« »

We are proud to supply
the following materials for production
of this new frame

ALCOA EXTRUDED SHAPES
Ring Rail Spindle Rail
Trim and miscellaneous parts

ALCOA DIE CASTINGS
Eliminate many expensive and
complicated machining operations

ALCOA ALUMINUM SHEET
ALCOA ALUMINUM TUBING
For various applications

ALCOA®
First in Aluminum

Designed for the
SACO-LOWELL
GWALTNEY
SPINNING FRAME

RADICALLY NEW SPINNING FRAME DESIGNED WITH REYNOLDS ALUMINUM

FOR SPEED!..EFFICIENCY!..ECONOMY!

Result of 7 Years Planning Eagerly Welcomed by Textile Industry—Seven years ago, Saco-Lowell Shops, Biddeford, Maine, set out to design a completely new, radically different spinning frame incorporating new ideas and materials. Strong, lightweight aluminum proved the ideal metal for their purpose.

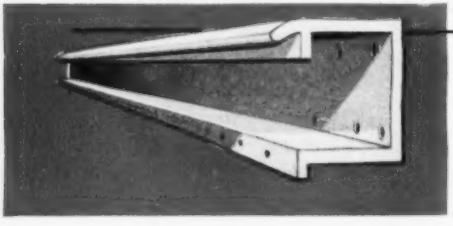
Recognizing Reynolds' wide range of experience in designing for the textile field, they called on Reynolds Aluminum Specialists to help develop parts for the new spinning frame. Many parts previously made of sheet steel, structurals or castings were designed as aluminum extrusions or die castings.

In this way they were able to take advantage of the wide flexibility of fabricating methods provided by aluminum. As a result, there is a minimum of fabrication needed and very little scrap loss. The lighter weight means easier handling, and thus, lower fabricating costs.

The advantages of aluminum work for the mills, too. Lighter weight on ring rails, for instance, means smoother reciprocating motions, higher speeds and power savings. Aluminum parts can't rust, can't stain the fibers. Since the machine is lighter, floor loads are reduced.

This new Gwaltney produces a large package and is radically new in design and operation . . . planned from the very first as an improvement over old-fashioned machines. Aluminum, *naturally*, was a key material in such planning . . . and Reynolds Aluminum Specialists were in there from the beginning.

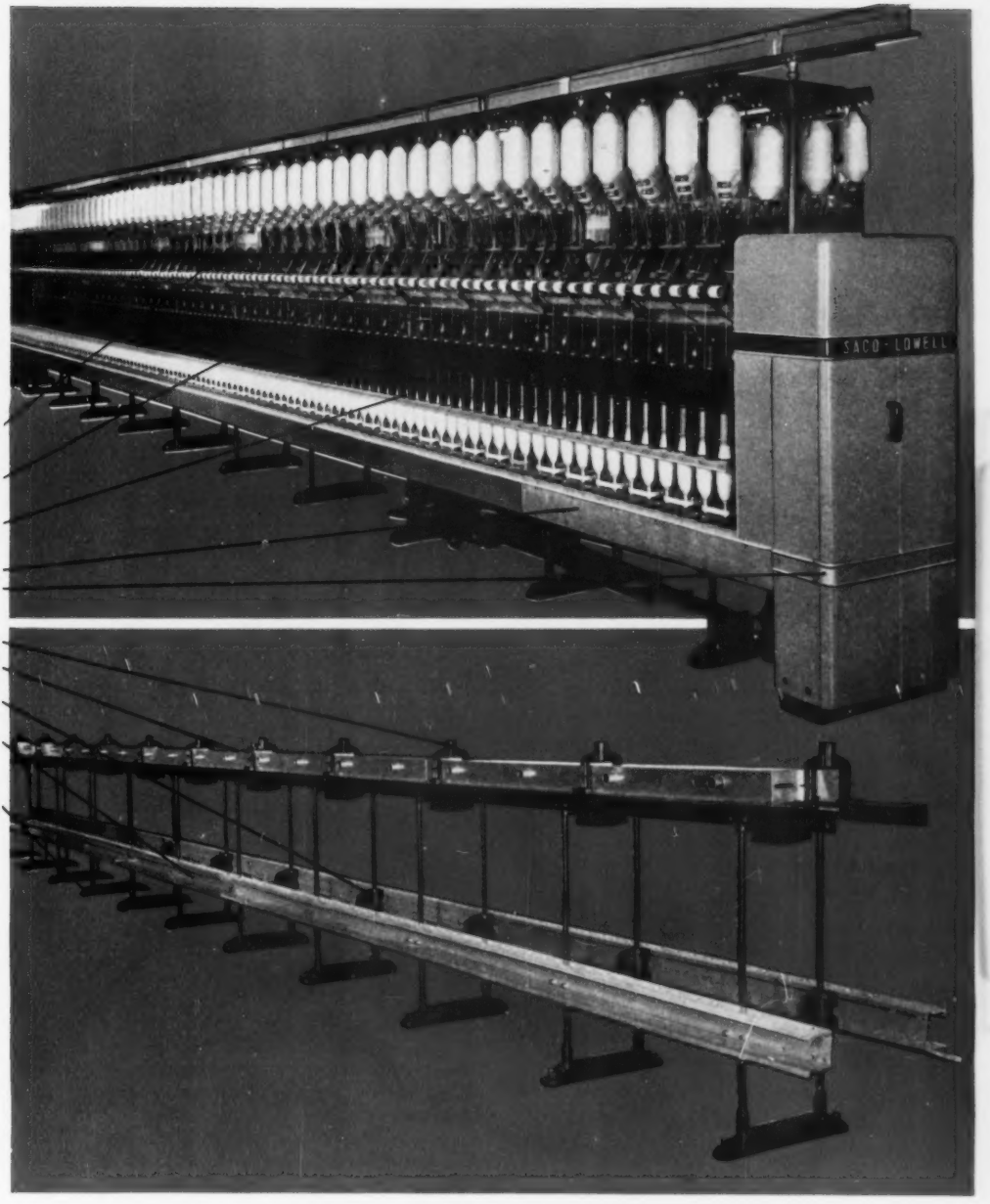
To find out more about the advantages of aluminum and how it can benefit you, contact your Reynolds Aluminum Specialist. You'll find him listed under "Aluminum" in your classified telephone directory. For further information on aluminum and extrusions in the textile industry, send for your *free* copies of the Reynolds Technical books, "Aluminum in the Textile Industry" and "Designing with Aluminum Extrusions". Write to Reynolds Metals Company, 2535 South Third Street, Louisville 1, Kentucky.



1500 LBS. OF ALUMINUM GO INTO THE NEW GWALTNEY

800 LBS. OF EXTRUSIONS
500 LBS. OF DIE-CASTINGS
200 LBS. OF SHEET ALUMINUM

The spindle rails of this exceptional new spinning frame are made of aluminum extrusions weighing over 525 pounds. They are more easily and quickly manufactured than welded steel assemblies because many machining operations are eliminated. Only the holes need be drilled. The one-piece aluminum extrusions with aluminum sheet cover plates provide completely closed box sections for greater rigidity, minimum vibration and faster, more accurate operation.



REYNOLDS ALUMINUM

MODERN DESIGN HAS ALUMINUM IN MIND

REYNOLDS METALS

For more information, write direct or use Reader Service post card.

only

ECLIPSE BOBBIN HOLDERS

OFFER THESE

"BIG TEN" Features

1. Completely replaces wooden skewers.
2. Stainless steel ball bearings minimize friction, resulting in uniform quality of roving.
3. Permits less twist. Tests indicate yarn of more even texture.
4. Creel boards easily cleaned. Overhead suspension leaves open creels. Blowers more effective.
5. Better spinning of spun rayon.
6. Easier creeling; less physical effort and fewer motions required.
7. Improved brake attachment prevents over-run and backlash.
8. Now cadmium plated and stainless steel balls more rust resistant.
9. Time-tested product—holders in operation for over ten years.
10. Easy to install; practically no upkeep.

★ ★ ★

Textile men everywhere are concerned with efficiency and economy of operation, and that's just what these *exclusive* Eclipse features assure you! If you want to modernize your present plant equipment profitably, you can't go wrong with the finest—Eclipse Bobbin Holders. Write us for further details.

ECLIPSE MACHINE DIVISION of Bendix AVIATION CORPORATION

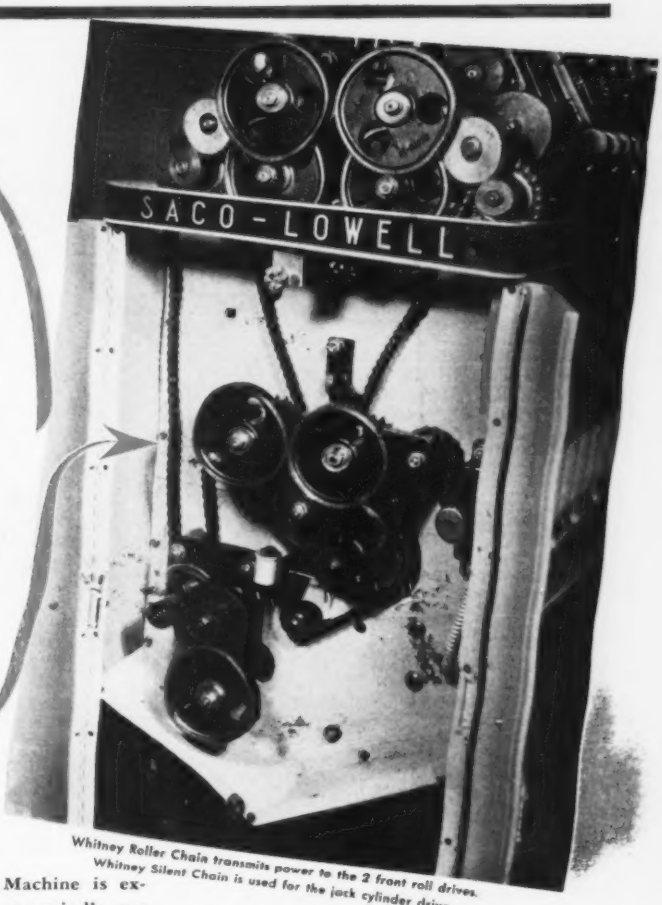
ELMIRA, NEW YORK

Export Sales: Bendix International Division, 72 Fifth Avenue, New York 11, N. Y.

ECLIPSE

Whitney Chain Drives

Provide Positive Power Transmission, Uniform Speed and Lower Maintenance Costs in the Saco-Lowell Gwaltney Spinning Frame



Whitney Roller Chain transmits power to the 2 front roll drives. Whitney Silent Chain is used for the jack cylinder drive.

The new Gwaltney Spinning Machine is expected to produce more yarn per spindle per hour at lower cost, and at the same time produce a yarn of improved quality and appearance.

For over a quarter of a century, Saco-Lowell has specified Whitney Chain Drives for their equipment and it was only natural that their engineers selected Whitney roller and silent chains for this new, revolutionary spinning frame.

You, too, can benefit by using Whitney Chain drives in your equipment. Their positive grip transmits full rated horsepower smoothly and efficiently. There is no slippage or friction loss and uniform speed is maintained, assuring product uniformity. They are quickly and easily installed, saving costly down time. Their rugged construction assures long, trouble-free operation . . . cuts maintenance costs.

Consult your local Whitney Field Office or Distributor, or write direct for information and catalog.

Whitney
CHAIN COMPANY
211 HAMILTON STREET
HARTFORD, CONNECTICUT

For more information, write direct or use Reader Service post card.

EX-CELL-O

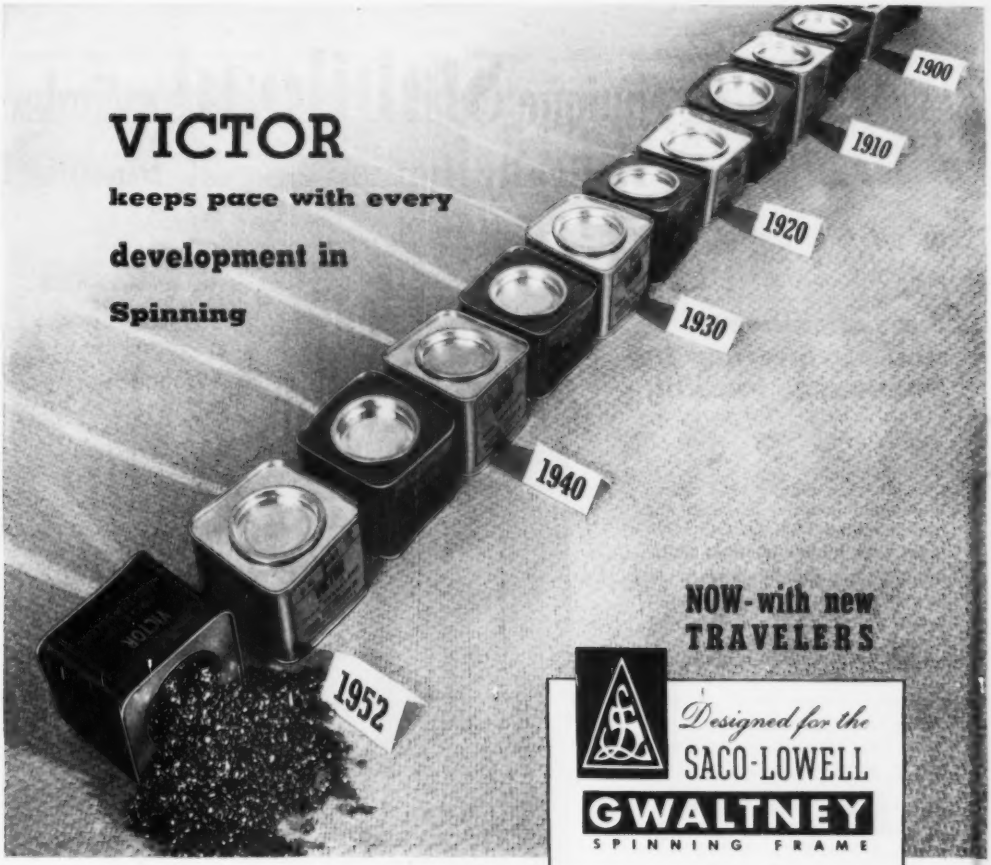
... a great name in the
precision machine tool field!

Ex-Cell-O has been making precision parts to customers' specifications for close to 30 years. Today, these Ex-Cell-O products include parts for the textile industry . . . from spindles and various small parts to large assemblies. Ex-Cell-O has the facilities—machines, heat treat, assembly, and inspection—to produce your precision parts economically, in small or large volume, and in accordance with your delivery schedule. For a quotation, send a part blueprint to Ex-Cell-O Corporation in Detroit today.

Bulletin No. 26181 describes Ex-Cell-O's textile products. Write now for your free copy.

EX-CELL-O CORPORATION DETROIT 32

XLO



One of the principal objectives in the design of the Gwaltney Spinning Frame was the establishment of conditions under which higher traveler speed would be practical. It was recognized that, under these conditions, specially designed travelers would be required to take full advantage of the new speed potential.

At the request of Saco-Lowell, Victor's research staff cooperated fully in the necessary experimentation to develop travelers exactly suited to the need. The result is the Victor X2D — Half Round Wide series, which are geared to the high duty requirements of the Gwaltney frames. Complete information regarding their most efficient use is available from any Victor Service Engineer or sales office.

Once again Victor has devoted its experience and special abilities to a significant development in spinning machinery. Victor will continue this same friendly service to *all* textile machinery manufacturers, taking part in the achievements of the future, as it has in those of the past and present.

As recognized Traveler *specialists*, Victor Service Engineers can help you keep your production and quality "a step ahead". Write, wire, or phone the nearest Victor office.

•

VICTOR RING TRAVELER COMPANY

PROVIDENCE, R. I. . . . . 20 Mathewson St. . . . . Tel. Dexter 1-0737

GASTONIA, N. C. . . . . 358-364 West Main Ave. . . . . Tel. 5-0891

VICTOR Ring Travelers

Now... unique Stabiload cylinder radically improves roll loading!

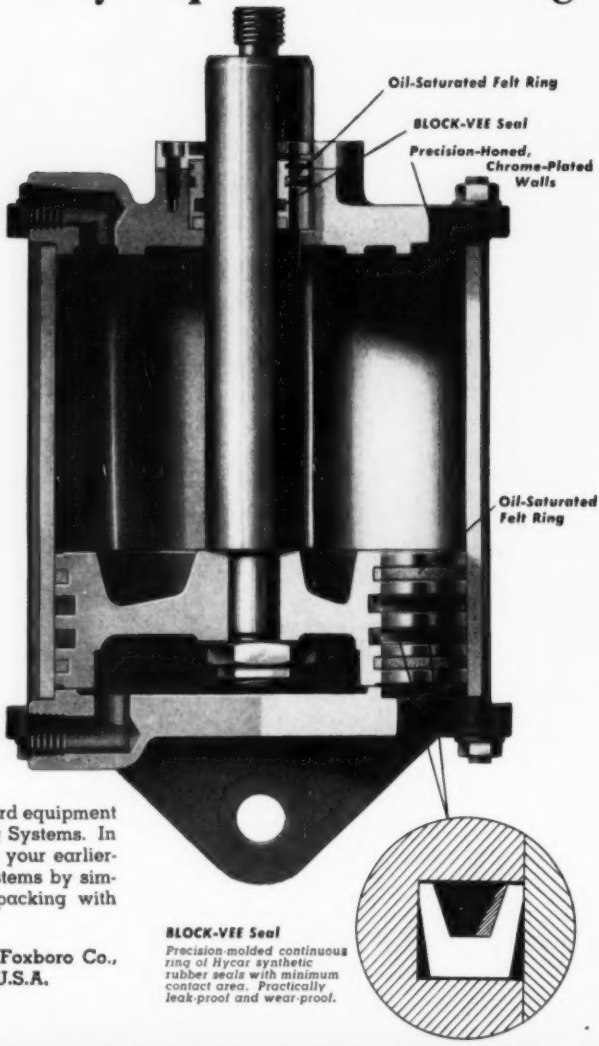
Ends stickiness and air leakage in pneumatic loading

Designed specifically for Foxboro Pneumatic Loading Systems, the new Foxboro STABILOAD Air Cylinder now makes possible more-accurate and more-uniform moisture extraction . . . safely permits higher nip pressure . . . than ever before could be obtained with loaded rolls.

Through use of the exclusive Block-Vee Piston Seal and precision-honed, chrome-plated cylinder wall, Stabiload Cylinders are so nearly friction-free that even fractional changes in air pressure settings give immediate, corresponding changes in roll nip pressure. You'll get substantial savings in maintenance because the Block-Vee Seal never needs attention or adjustment. And the virtual elimination of air-leakage gives substantial savings in compressed air.

STABILOAD Air Cylinders are standard equipment on all new Foxboro Pneumatic Loading Systems. In addition, you can importantly improve your earlier-model Foxboro Pneumatic Loading Systems by simple replacement of piston, rod and packing with STABILOAD components.

Write for detailed Bulletin 446. **The Foxboro Co., 844 Neponset Ave., Foxboro, Mass., U.S.A.**

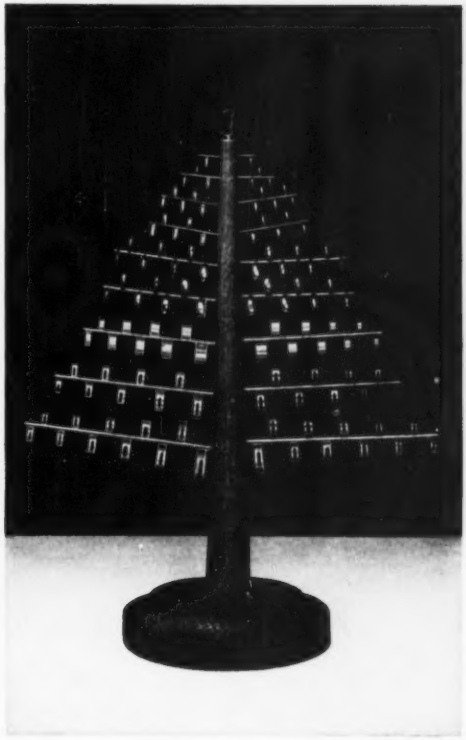


BLOCK-VEE Seal
Precision-molded continuous ring of Hycar synthetic rubber seals with minimum contact area. Practically leak-proof and wear-proof.

FOXBORO
REG. U. S. PAT. OFF.

PNEUMATIC ROLL-LOADING

FACTORIES IN THE UNITED STATES, CANADA AND ENGLAND



BETTER BALANCE

GIVES

HIGHER SPEEDS

We design ring travelers to individual specifications, to meet special requirements. We offer mills the *longest background* of experience in the designing and manufacturing of ring travelers.

NATIONAL RING TRAVELER CO.

Pawtucket, Rhode Island — Charlotte, North Carolina

NATIONAL...

the oldest and largest manufacturer of Ring Spinning and Twisting Travelers in the United States has been glad to cooperate in developing the

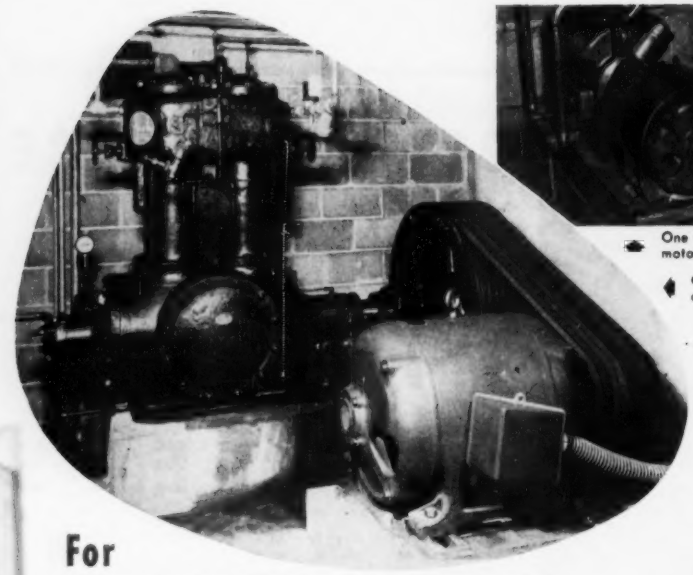
"PIERCE E" RING TRAVELER

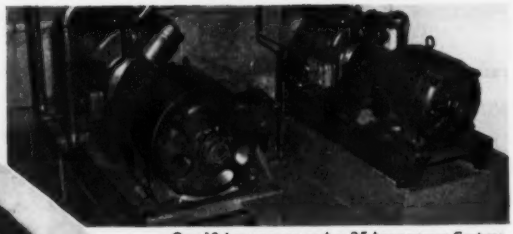
for the **SACO–LOWELL**
GWALTNEY
SPINNING FRAME

AMERICAN

HICK'S

WILSON'S





One 10 horsepower and a 25 horsepower Century motor furnish power to air condition an office.

Century 75 horsepower Type SCH motor driving a compressor in a skating rink.

Unusually Quiet Starting and Running Characteristics

For
REFRIGERATION COMPRESSORS
You Need the High Starting Torque of . . . . .

Century

Type SCH Motors

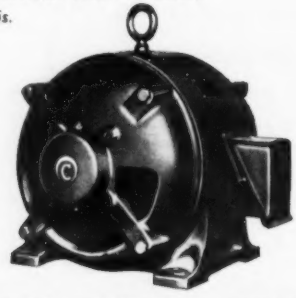
Century Type SCH, Squirrel Cage polyphase alternating current High Torque motors are ideal for refrigeration compressor applications. They bring compressors up to speed smoothly and easily under full load.

Century Type SCH motors have the high starting torque characteristics required for Refrigeration Compressors. The low starting current is desirable for automatic across the line starting.

In addition, Century builds a complete line of electric motors in a wide range of types, in sizes from 1/8 to 400 horsepower. Specify Century motors for all your electric power requirements.

Century Service Is Near Any Century Motor Driven Equipment. Prompt Service is offered by CENTURY'S National Network of more than 200 Authorized Service Stations, supervised by 28 Century Sales offices.

1. *Facilities for immediate exchange of most CENTURY standard ratings of standard construction are available at CENTURY Authorized Service Stations.*
2. *CENTURY Authorized Service Stations are qualified and equipped to service and repair any piece of CENTURY apparatus.*
3. *Genuine CENTURY renewal parts are available at CENTURY Service Stations, CENTURY Parts Distributors and at the factory in St. Louis.*



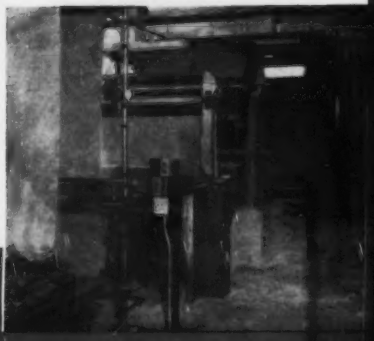
Century C MOTORS

CENTURY ELECTRIC COMPANY • 1806 Pine Street, St. Louis 3, Missouri

Offices and Stock Points in Principal Cities

702

HUNTER Equipment Safeguards Quality at *Geltman* Sponging



Two views of the Hunter High Speed Unishrink Dryer installed at the Geltman plant at Woonsocket, Rhode Island. (Send for the new BULLETIN for all the facts and figures.)

The Geltman Sponging Corporation, one of the oldest quality sponging houses in the industry, recently installed *another* Hunter High Speed Unishrink Dryer . . . this time, in their new, modern plant at Woonsocket, Rhode Island.

Here, every step in the processing of a variety of fabrics is handled by highly skilled personnel, under the most efficient production methods to maintain Geltman's top-quality standards. It is only natural, therefore, that wherever quality is so carefully safeguarded, you will find superior Hunter equipment.

Hunter "plus production" equipment is *preferred* by the leading mills and finishers throughout the world. Wherever high quality and low cost must be maintained, efficient, dependable Hunter machines are 'on the job' processing woolens, cottons, blends and synthetics.

There's a technically trained Hunter field engineer near you qualified to make recommendations concerning your specific problems. ★ ★ ★ ★ ★

- COTTONS
- BLENDS
- WOOLENS
- SYNTHETICS

Hunter specializes in the design and construction of modern wet finishing, dyeing and drying equipment for processing cottons, blends, woolens and synthetics. Write us today for complete technical bulletins on the many Hunter "plus production" units that can make your operation more efficient . . . more profitable!

plus production

- efficient operation of modern equipment
- less down time of equipment
- quick, easy repair . . . rapid parts delivery

JAMES HUNTER

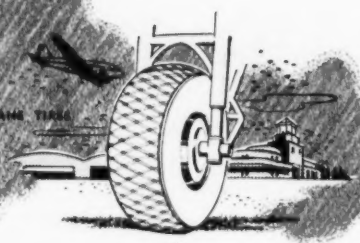
MACHINE COMPANY

NORTH ADAMS, MASSACHUSETTS FOUNDED 1847

BUILT BY HUNTER . . . IT'S DEPENDABLE

JAMES HUNTER MACHINE CO. Hunter NORTH ADAMS MASS.

UPHOLSTERY AND DRAPERY MATERIAL



AIRPLANE TIRES

What do all these products have in common?

PARACHUTES

You don't have to analyze these products too carefully to realize that they are all products in which textile fabrics are used. What is not so evident is the fact that these and thousands of other industrial, military and consumer items like them are manufactured from plied or twisted yarns to give them greater strength, elasticity and longer wear.

To enable mills to produce the wide range of plied, twisted, or novelty yarns needed, there are more than thirty (30) models and types of twisters manufactured by Whitin. Because the proper twisting of textile fibers is an important and complicated operation, there is a Whitin twister designed especially to meet every requirement — a twister with an outstanding achievement and production record behind it.

If you have a twisting problem or need, why not bring it to Whitin — largest manufacturers of twisters in the world?

SWEATERS AND SKIRTS

Write today for descriptive literature giving complete information about Whitin twisters.

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

POWELL VALVES

are engineered to suit the service conditions

Therefore, when you install the correct Powell Valve in a line, you are assured of long, trouble-free performance under even the most exacting conditions.

And because there's a POWELL valve for every known industrial service, there are more different kinds of Powell Valves in use today than any other make.

The Wm. Powell Company
Cincinnati 22, Ohio

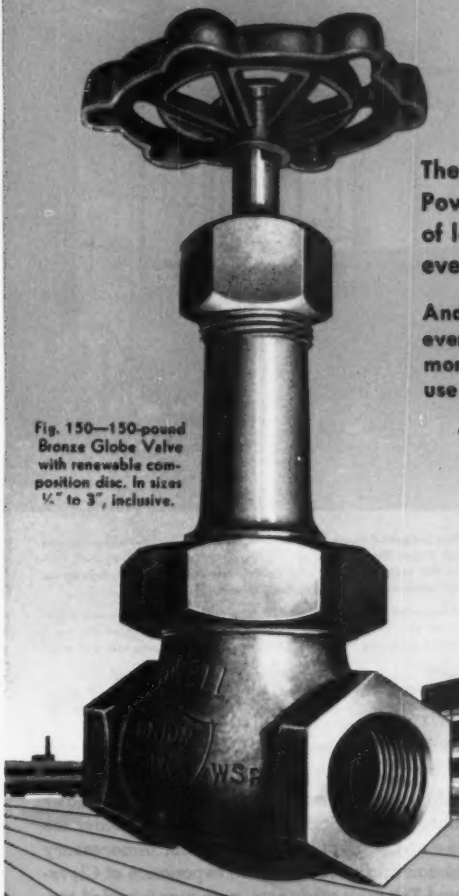
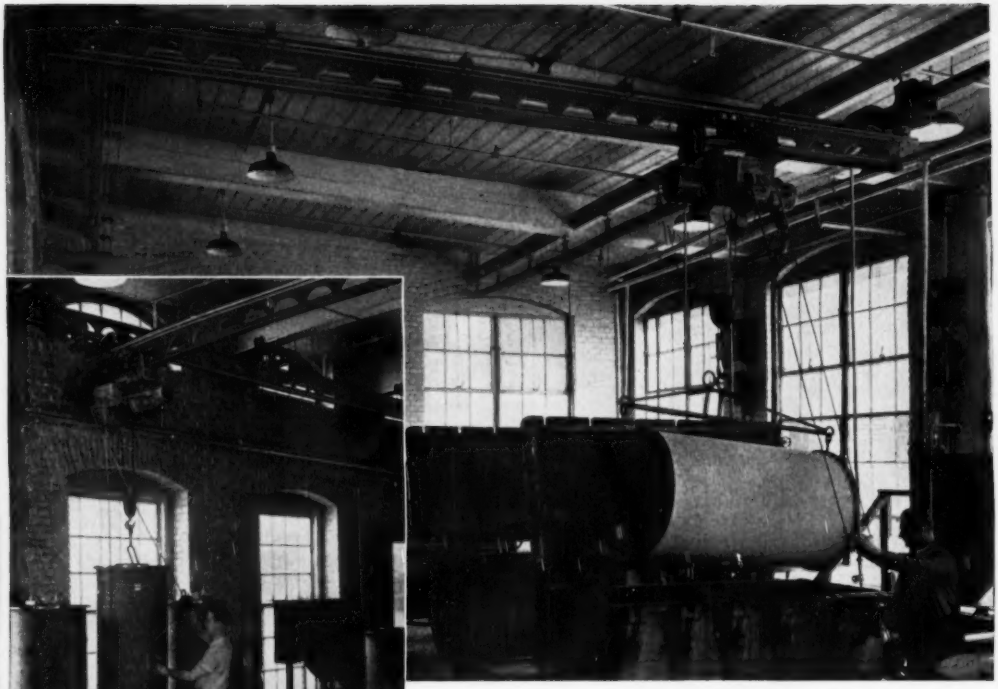


Fig. 150—150-pound Bronze Globe Valve with renewable composition disc. In sizes ¼" to 3", inclusive.



Above—a hand-propelled crane with electric hoist handles the beams in and out of Morton Beam Dyeing Machines. This crane may be interlocked with other parts of the extensive Cleveland Tramrail system, enabling delivery of beams to other sections of the mill without rehandling.

Left—a hand-propelled crane with electric hoist serves the Gaston County Beam Dyeing Machines in a leading North Carolina denim mill. It makes the work of handling beams in dyeing machines, extractor and dryer, fast, safe and easy.

BEAM DYEING made *Fast - Safe - Easy*

In the big mills where all factors are weighed with extreme care before any equipment is purchased, will be found Cleveland Tramrail cranes or complete overhead materials handling systems.

Handling of beams in and out of kiers either of horizontal or vertical type is one of the many jobs for which Cleveland Tramrail is used. It picks up and delivers beams simply by pulling a cord or pushing a button. Hazardous, hard work is made safe, easy and production speeded.

Now, more than ever before, wherever heavy materials are handled, you should consider the use of Cleveland Tramrail to cut unnecessary motion and save time. The experience of Cleveland Tramrail engineers, with many varied textile installations, is available to you without obligation.

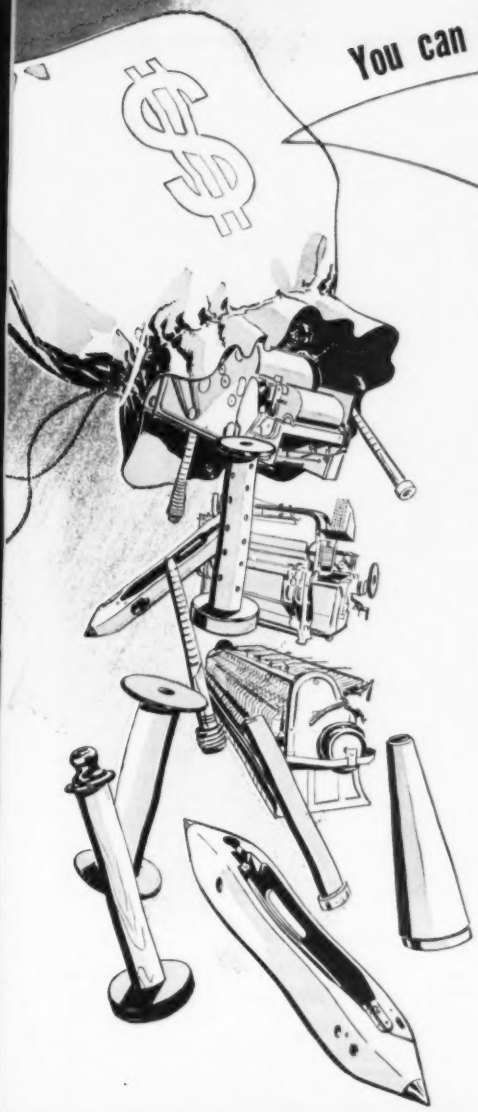
GET THIS BOOK!

BOOKLET No. 2008. Packed with valuable information. Profusely illustrated. Write for free copy

CLEVELAND TRAMRAIL DIVISION
THE CLEVELAND CRANE & ENGINEERING CO.
8451 East 287th St. WICKLIFFE, OHIO.

CLEVELAND TRAMRAIL
OVERHEAD MATERIALS HANDLING EQUIPMENT

You can save if you take this cost-wise view



Yarn Carriers, too, are Capital Equipment

How do you regard bobbins, shuttles and other yarn carriers? Like many millmen, do you, also, think of them as incidental equipment, too low in cost to warrant much administrative attention?

Then look at a few *annual* expenditures for yarn carriers . . . $80,000 . . . $60,000 . . . $45,000 . . . enough to buy several units of processing machinery.

When you take the proper view of yarn carrier purchases, you'll find they, too, should be classed as capital equipment. And there's a real opportunity for substantial savings if you buy them with equal care to get the most for your money . . . in advanced design, in lasting durability, and in top-flight performance.

It is taking this cost-wise view that has led so many of the nation's best operated mills to standardize on U S Bobbins, Shuttles, and other yarn carriers. They know they are dealing with men who "speak their language" . . . and with a firm whose aptitude is proved by a 93-year record of leadership.

Whether you are equipping a new mill or replacing worn out carriers, talk to a U S sales representative first. You'll find it pays . . . in better yarn and fabric quality, and in lower operating costs.

U S BOBBIN & SHUTTLE CO.

LAWRENCE, MASS. PROVIDENCE, R. I. PHILADELPHIA, PA. JOHNSON CITY, TENN.
GREENVILLE, S. C. CHARLOTTE, N. C. MINNEAPOLIS, MINN.

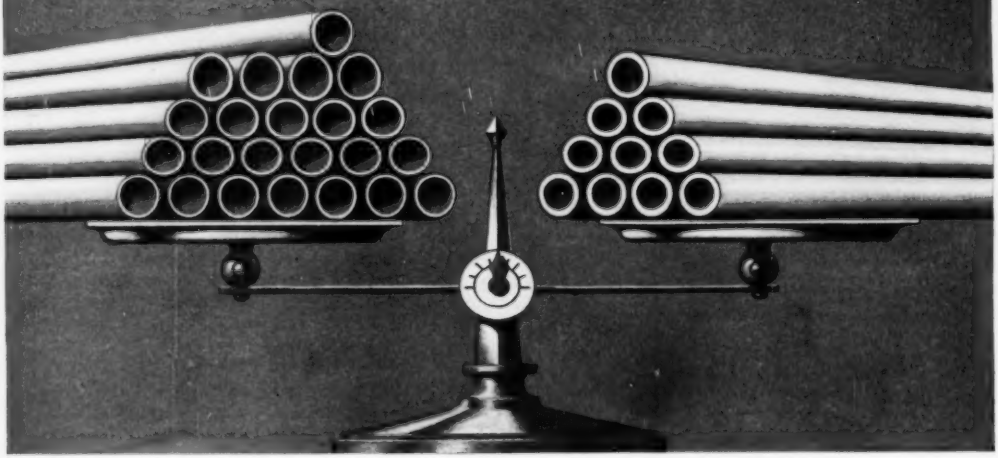
LOS ANGELES: E. G. Paules, 1782 W. Vernon Ave.
DALLAS: O. T. Daniel, Textile Supply Co.
CANADA: W. J. Westaway, Montreal, Que., Hamilton, Ont.

U S owned timber properties permit complete control of wood stock selection and every step in processing, from forest to finished products. Five manufacturing plants, North and South, provide ample facilities to produce and deliver promptly the cost-saving yarn carriers you need, in any quantity.

Anywhere in textile America, you are near the headquarters of a U S specialist in yarn carrier selection. He'll call at your request.

Sure Stainless Pipe is Tough to Get...

but...using light weight *Schedule 5* Pipe will almost double the supply ...and you pay less per foot!



What Schedule 5 Pipe Is—
A light wall pipe, Carpenter *Schedule 5* gives you more feet of pipe for every pound of scarce stainless steel. So you can quickly see how *Schedule 5* increases the amount of pipe available and reduces your cost per foot. Plus the fact that the larger I.D. means increased flow area.

How Schedule 5 Reduces Costs
First saving is 40% to 50% on the cost of your pipe. And, because *Schedule 5* lets you use the next smaller pipe size, you reduce by as much as 25% your costs of valves, fittings, etc.

How It Hooks Up With Tube
This pipe is easily adapted to use with existing lines of tubing or Schedule 40 and 10 pipe, using simple connectors available from several manufacturers.

Why It Means More Pipe
You get *more feet of pipe* for every pound of material with Carpenter *Schedule 5* Stainless Pipe. And we don't have to tell you how important it is to get *more steel* from every pound of nickel and chrome these days.

Data Sheets give you complete information about Carpenter *Schedule 5* Stainless Pipe. Write for your personal copy.

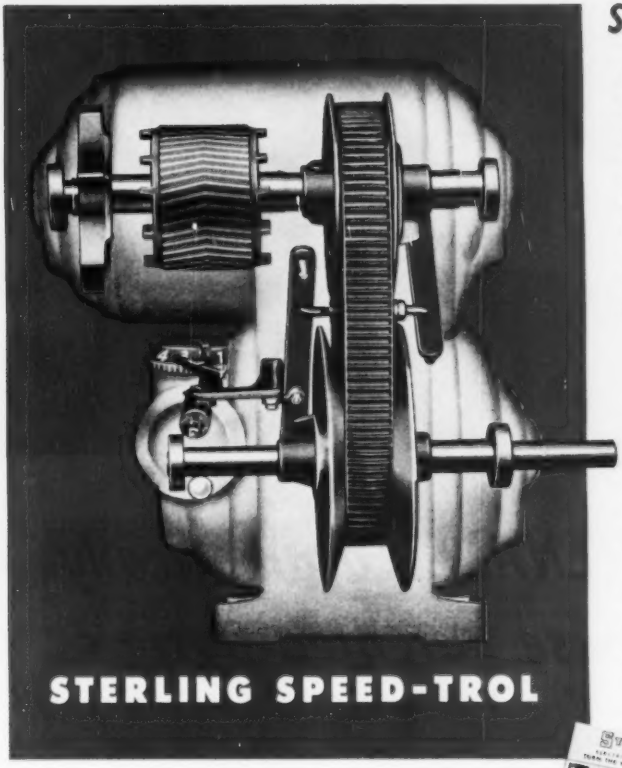
Carpenter

THE CARPENTER STEEL COMPANY
Alloy Tube Division, Union, N. J.
Export Department: Carpenter Steel Co., Reading, Pa. "CARSTEELCO"

STAINLESS TUBING & PIPE

- guaranteed on every shipment

TEXTILE MILL INCREASES PRODUCTION 25% WITH



STERLING SPEED-TROL!

We consider Speed-Trols indispensable to the progress of the spinning industry, reports Mr. C. A. Fischer, Maintenance Engineer of Jantzen Knitting Mills Inc. With Speed-Trol we accurately regulate speed of a Pacific Converter as related to operator, atmospheric conditions, amount of static electricity and the different materials being blended. Speed-Trols, also used on our spinning frames and various other machines, have increased production 25% to 30%, have given us greater machine versatility and require very little maintenance.

STERLING SPEED-TROL GIVES YOU VARIABLE SPEED CONTROL NECESSARY FOR:

EQUIPMENT ADAPTATION TO: Sequence synchronization — operators' abilities — load variations due to differences in quantity, quality, weight, size, tension, hardness or shape of material to be processed, machined, conveyed, blended, mixed, etc.

PROCESS CONTROL OF: Temperature — viscosity — level — pressure — flow — etc.

TIME CONTROL OF: Baking — drying — heating — cooking — pasteurizing — soaking — chemical action — etc.

With Speed-Trol you get the maximum in production, plant efficiency, quality and profit.

OTHER STERLING ELECTRIC POWER DRIVES:
• STERLING SLO-SPEED (GEARED) MOTORS
• STERLING KLOSD AND KLOSD-TITE (NORMAL SPEED) MOTORS
DRIP-PROOF • SPLASH-PROOF • TOTALLY ENCLOSED

70 ILLUSTRATIONS showing how Sterling Electric Power Drives reduce production costs. Write for Bulletin No. B 109

OUTSTANDING FEATURES:

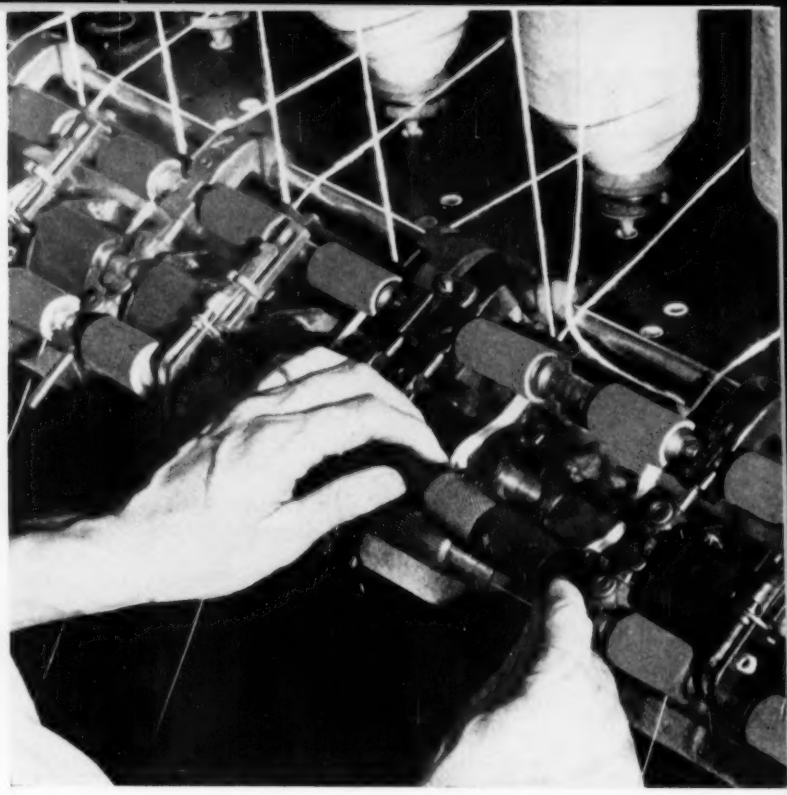
Infinite speeds — positive speed regulation — fingertip control — large indicator — positive pulleys — no springs — belt tension in proportion to load — protected — streamlined — Herringbone Rotor — through ventilation — versatile mounting — NEMA dimensions — shock absorbing — quiet operation — rugged — compact — dependable — long life.

STERLING ELECTRIC MOTORS

Plants: New York City 51; Van Wert, Ohio; Los Angeles 22; Hamilton, Canada; Santiago, Chile.

Offices and distributors in all principal cities.

For more information, write direct or use Reader Service post card.

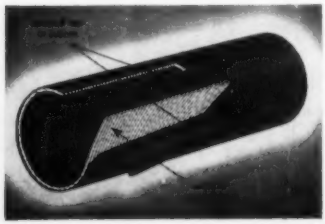


LONGER LIFE: Accotex Aprons reduce replacement costs. On single and most double apron frames they will give six to eight years—and more—of continuous clean-running service on two-shift operation.

APRON MAINTENANCE dramatically reduced by these patented aprons

If you would like to get up to twice the life you were accustomed to with old-style aprons, you should try Armstrong's Accotex® Aprons.

In one leading Georgia mill, for example, an installation of Armstrong's NO-700 Aprons ran two shifts continuously for eight years. At the end of that time, these aprons were still flexible, still free from cracks, still strong and as resistant to stretching as when new.



What's the secret of this fine performance? It's in the construction. Accotex Aprons are made in three layers: a method developed and patented by Armstrong. Each layer is scientifically designed to do its own special job.

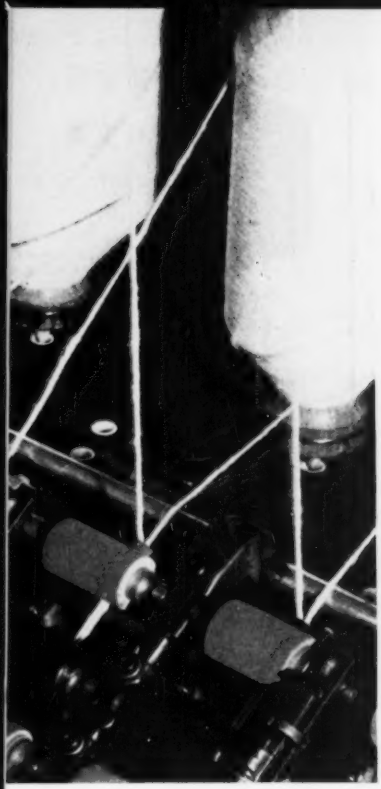
The inner layer is a seamless tube of synthetic rubber made to resist the abrasion of rubbing over the nose bar year after year. The seamless outer layer is also synthetic rubber, treated to stay smooth and run clean. In the middle are strong cords that prevent stretching or curled edges.

When vulcanized together, these three layers combine to make a super-flexible, tough apron.

Mill men who use these aprons generally agree that Accotex Aprons have excellent yarn handling qualities—that they are exceptionally clean running.

You can find the reason for this in the way the rubber for these aprons is compounded, in the special steps taken during manufacturing to insure maximum flexibility, and in the patented treatment that gives each apron a satiny smooth surface yet retains the right amount of friction.

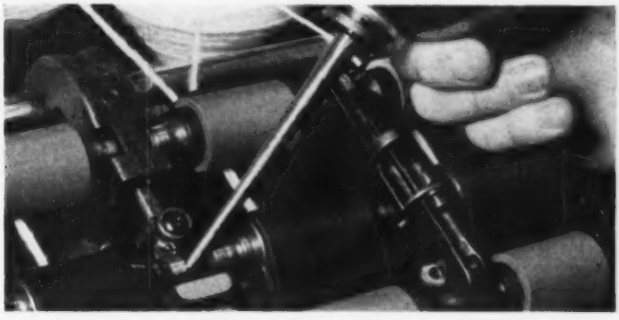
If you'd like to have this kind of apron service, see your Armstrong representative. He can supply you with a durable Accotex Apron suited to your frames. Call him today or write Armstrong Cork Company, Textile Products Department, 8304 Arch Street, Lancaster, Pennsylvania. Available for sale in export markets.



SUPER FLEXIBLE: NO-750 Accotex Apron has been especially developed for single apron frames. It, too, is seamless and extremely flexible. You'll find that it hugs the nose bar tightly, giving you smooth slip roll action.

SATIN FINISH: Rub your fingers across the surface of an Armstrong's Accotex Apron. You'll discover it's smooth as satin. Each Accotex Apron is ground to the exact thickness you specify and given a patented treatment that makes the surface smooth, clean running, and scuff resistant.

NO SEAMS: Look at any Armstrong's Apron. You'll see it has no seams to crack or break, no seams to cause irregular slip roll action or uneven drafting.



OIL RESIDANT: Accotex Aprons don't absorb oil or soften from exposure to oils, dyes, and commonly used textile solvents. They won't sweat under any normal mill condition. This, plus the patented Armstrong treatment, gives you aprons that run clean year after year.

ARMSTRONG'S ACCOTEX APRONS

one of Armstrong's complete line of textile mill supplies

American Blower... a time-honored name in air handling

El Paso, Texas, has a conveniently located American Blower Office to provide you with data and equipment for air handling. You can reach American Blower in El Paso by calling 2-2646. In other cities, consult your phone book.

CLASSROOM COMFORT

Children in schools all over the country now learn their three R's in real classroom comfort, thanks to Nesbitt Syncretizers. For winter heating fresh air is drawn in from outside, warmed, and continuously circulated without drafts. Result . . . rooms are more pleasant, more inviting. Available with or without matching storage cabinets, Nesbitt Syncretizers are gracefully styled to complement any schoolroom.

HEAT WITH GAS?

If you heat with gas and your present heating system is inadequate or inefficient, replace or supplement it with American Blower Gas-Fired Unit Heaters. They're built for long, hard service, are finished to harmonize with modern interiors. A.G.A.-approved, American Blower Gas-Fired Unit Heaters are designed for either manufactured, mixed, natural or liquefied petroleum gases.

MORALE BUILDER

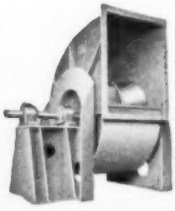
Good food and a pleasant atmosphere just naturally go together. Many firms, with employee cafeterias, use American Blower Utility Sets to keep kitchens and dining areas well ventilated. The Utility Set is ideal for general ventilation where duct systems are required. It can be used as a supply or exhaust fan and is equipped with Aileron Control for regulation of airflow. They're available as standard packaged units ready for immediate installation.

Whether your needs are civilian or military, American Blower heating, cooling, drying, air conditioning and air handling equipment improves over-all comfort and efficiency. For data, phone or write our nearest branch office.

Unit Heaters

Ventura Fans

Air Conditioning Equipment



Industrial Fans

Utility Sets

AMERICAN BLOWER CORPORATION, DETROIT 32, MICHIGAN
CANADIAN SIROCCO COMPANY, LTD., WINDSOR, ONTARIO
Division of AMERICAN RADIATOR & Standard Sanitary CORPORATION

YOUR BEST BUY AMERICAN BLOWER AIR HANDLING EQUIPMENT

Serving home and industry: AMERICAN-STANDARD • AMERICAN BLOWER • ACME CABINETS • CHURCH SEATS • DETROIT LUBRICATOR • KEWANEE BOILERS • ROSS HEATER • TONAWANDA IRON

PROGRESS REPORT #1

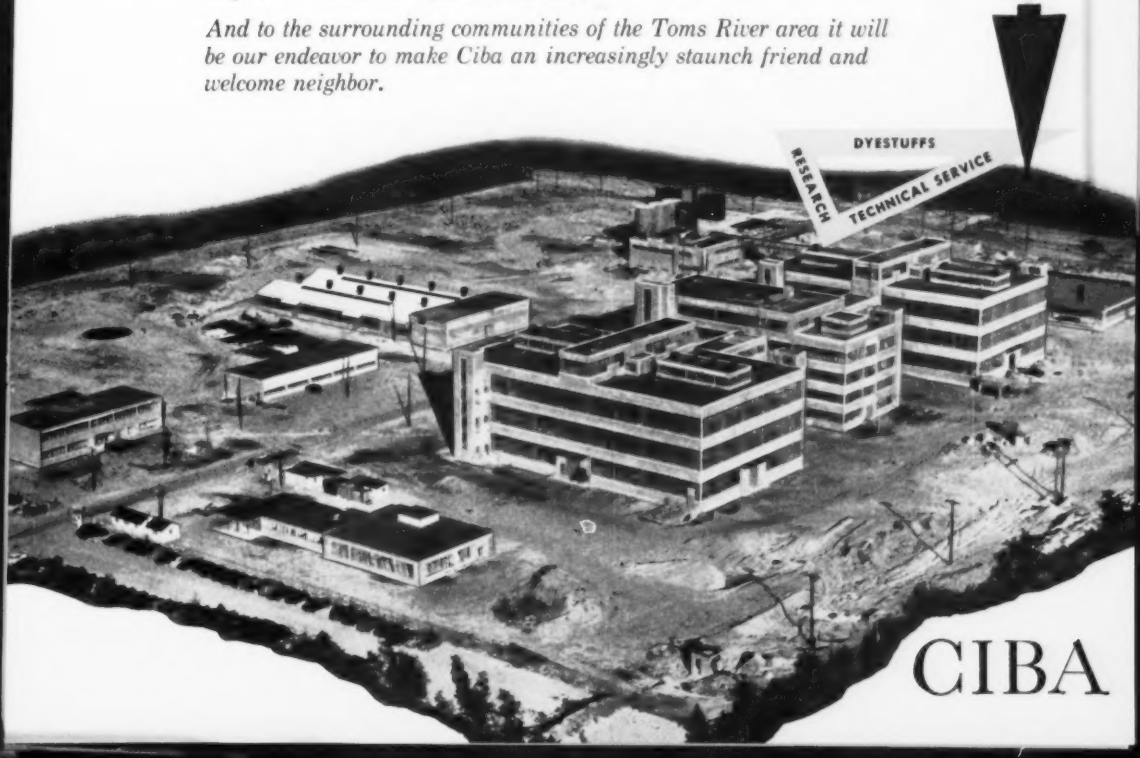
The "Toms River Story"

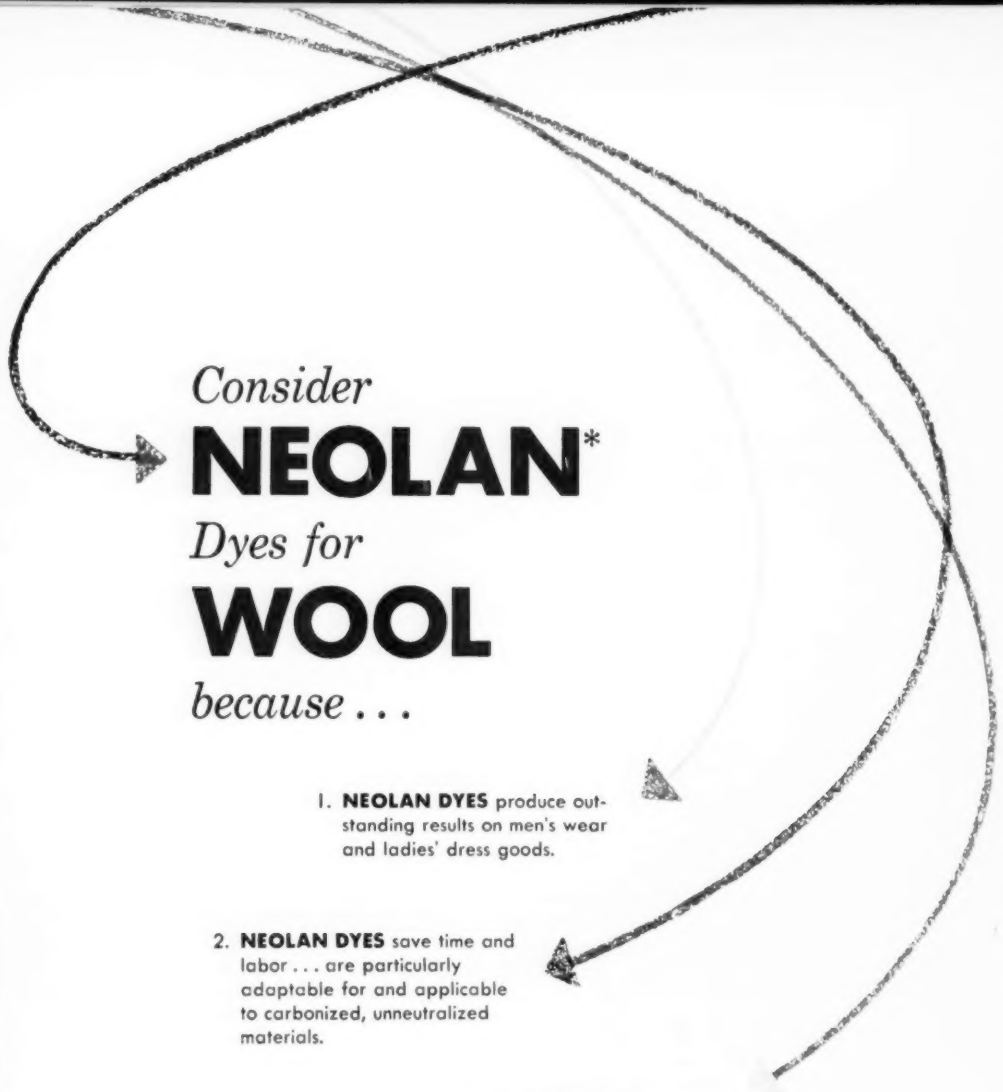
In the heart of the New Jersey midlands, on what had been 1200 unbroken acres of virgin pine forest until the Spring of 1949 when clearing crews moved in with axe, saw and bulldozer, a new and vast adjunct to the nation's chemical industry is rapidly taking shape . . . the most modern plant for production and technical service of vat dyestuffs in the world.

The Toms River Project is entirely Ciba conceived, designed, engineered and owned. It is being constructed, equipped and staffed by Ciba. Upon completion within the year it will be operated exclusively by Ciba.

These are the facts, but not the whole story. For beyond the tons of blueprints . . . the millions of man hours, in skill and labor . . . and the ingenious enterprise that will bring the new Ciba plant into being close on schedule . . . Ciba's management sincerely hopes that users of dyestuffs . . . and their customers in turn . . . will find in these vast new resources for vat dyes products and technical counsel a major extension of the services they seek within the Dyestuff Industry.

And to the surrounding communities of the Toms River area it will be our endeavor to make Ciba an increasingly staunch friend and welcome neighbor.





Consider

NEOLAN*

Dyes for

WOOL

because . . .

1. **NEOLAN DYES** produce outstanding results on men's wear and ladies' dress goods.

2. **NEOLAN DYES** save time and labor . . . are particularly adaptable for and applicable to carbonized, unneutralized materials.

3. **NEOLAN DYES** produce excellent unions on wool nylon blends.

Color cards and full details for dyers on request.

*Reg. U. S. Pat. Off.

CIBA

CIBA COMPANY INC.,
627 Greenwich Street, New York 14, N.Y.
Boston Chicago Charlotte
Providence San Francisco Philadelphia

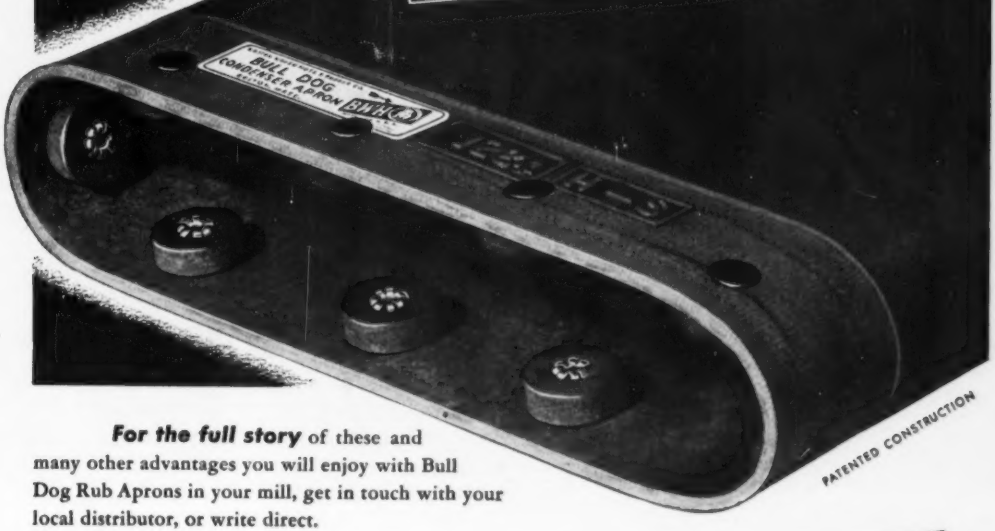
Get Longer Apron Life, Lower Maintenance Costs . . .

with BULL DOG RUB APRONS

Because Bull Dog Rub Aprons are made of a patented, specially formulated synthetic material . . . a material that is stronger and more durable than is to be found in other rub aprons . . . Bull Dogs last longer.

And, because this material has a higher coefficient of friction, you can run Bull Dogs up to 30% slower where only ordinary rubbing is required . . . an added boost to longer apron life . . . and a real advantage to longer condenser life and lower maintenance costs.

What's more, Bull Dog Rub Aprons permit increased card condenser production up to 25% or more and they increase jack-spool capacity 40-50% by weight which results in lower handling charges and longer runs.



For the full story of these and many other advantages you will enjoy with Bull Dog Rub Aprons in your mill, get in touch with your local distributor, or write direct.

Another Quality Product of

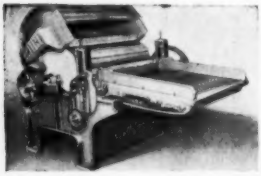
BOSTON WOVEN HOSE & RUBBER COMPANY

Warehouse Stock: 111 N. Canal St., Chicago, Illinois **Distributors in all Principal Cities**

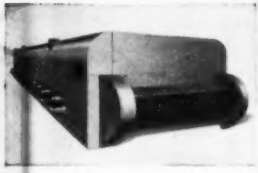
PLANT: CAMBRIDGE, MASS. • P. O. BOX 1071, BOSTON 3, MASS., U. S. A.

BWH — DEPENDABLE RUGGEDNESS

PREPARATORY MACHINERY SARGENT'S FOR THE TEXTILE FIELD

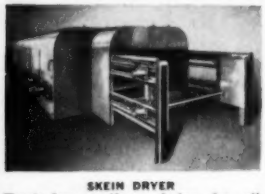


WET-and-DRY PICKER
All-job, cotton and all synthetic fibres . . . single process . . . opens and picks wet or dry stock thoroughly, economically.



RAW STOCK DRYER
Leader in its field . . . all fibres . . . conventional down-draft air circulation. Fast, trouble-free production.

AUTOMATIC FEEDER
Continuous, completely automatic operation. For scouring machines, openers, pickers, and all preparatory equipment.



SKEIN DRYER
Tensionless, uniform drying for all yarns. Each section individually controlled to attain peak efficiency in drying cycle for different fibres.

Known and Accepted 'Round the World...

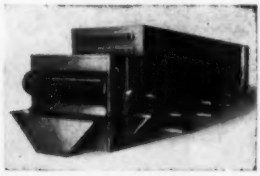
Wherever there are textile mills . . . from India to Indianapolis . . . from Chile to Chillicothe . . . from Singapore to Savannah . . . you'll find SARGENT Preparatory Equipment producing 'round the world, 'round the clock. Designed and built for the particular plant, process, production need. For trouble-free, speedy, top-quality production, in any country, any language, SARGENT Preparatory Equipment is tops!

Write us for your copy of the recent SARGENT Catalog #184.

★ ★ SINCE 1852 ★ ★

SARGENT'S LABORATORY
for Solving Your Drying Problems

C. G. SARGENT'S SONS CORPORATION maintains a complete, modern-as-tomorrow laboratory to aid customers and non-customers alike in solving drying problems. Not only for textiles, but leather, rubber, paper, synthetics, plastics, etc. Our experienced engineers are happy to test difficult-to-handle materials for you and to recommend procedures for you to gain your objective — efficient drying at economical cost. Call on SARGENT'S Laboratory when you have a drying problem. Maybe we can help.



CONTRA-FLOW DRYER
For all fibres . . . employs revolutionary counter-air-flow heating principle to provide rapid, economical drying . . . completely automatic.

STAINLESS STEEL WASHING MACHINE
Multi-purpose . . . continuous process scouring, bleaching, acidifying . . . stainless steel throughout . . . SARGENT-designed for high production, economy, efficiency.

BACKWASHER and DRYER
Continuous process . . . versatile . . . particularly useful to worsted spinners, custom combers and job dyers. Dryer has perforated plate or wire cloth aprons, individually motor-driven fans.

MIXING PICKER (heavy duty)
Versatile, adaptable . . . extremely rugged, high-production unit for continuous blending systems.

C. G. SARGENT'S SONS CORPORATION

Graniteville, Massachusetts, U. S. A.

REPRESENTATIVES

F. E. WASSON
519 Murdock Rd.
Philadelphia 19, Pa.

★

A. L. MERRIFIELD
215 Grove Ave.
Cincinnati 15, Ohio

★

W. S. ANDERSON
Carolina Specialty Co.
Charlotte, N. C.

★

M. F. BECKER & ASSOCIATES
122 So. Michigan Ave.
Chicago, Ill.

★

HUGH WILLIAMS & CO.
47 Colborne St.
Toronto 1, Canada

SEALMASTER

BALL BEARING UNITS

Self-Aligning

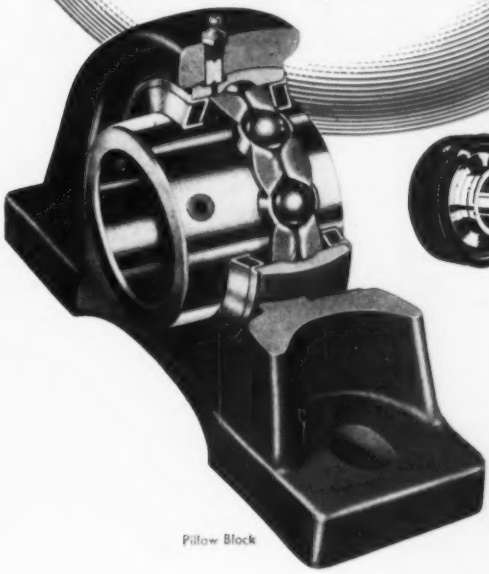
IN ANY DIRECTION WITHOUT SEAL DISTORTION

Take-Up Unit

Flange-Cartridge Unit

Flange Unit

Cartridge Unit



Pillow Block

SealMaster Ball Bearing Units take less time to install and maintain because they are designed to permit some misalignment. The outer race is machined on a radius and closely fitted into the radius ground housing. The bearing is thus free to move within its support.

What makes practical a misalignment of 2° to 4° in any direction *without capacity loss* is the patented perimeter dimple and its locking pin. Rotation of the outer race within the housing is prevented. The pre-lubricated SealMaster remains securely sealed—a very definite saving in maintenance.

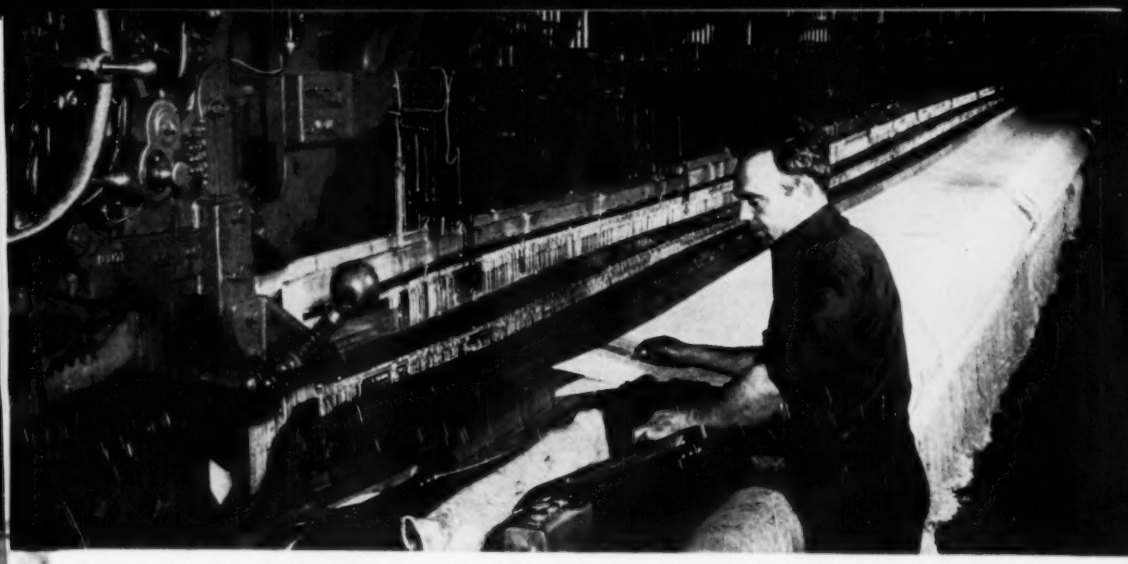
SealMasters on machines in your plant are easy to *maintain*—are an extra sales feature on equipment you *design*—are something to look for on new machines you *purchase*.

SEALMASTER BEARINGS

For complete data on SealMaster bearings tell us to mail you Catalog 845.

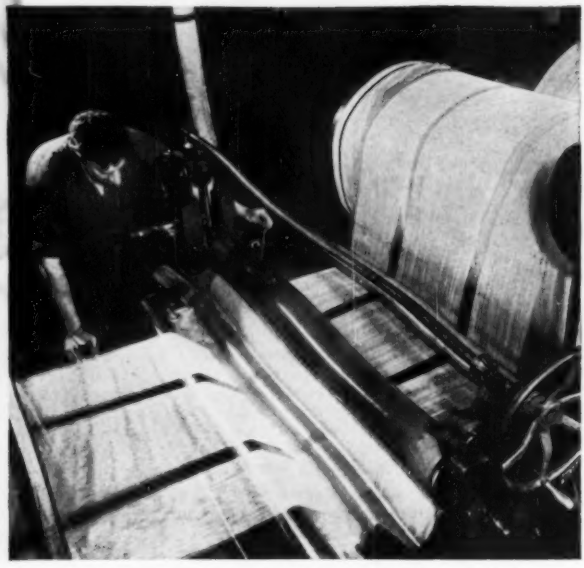
A DIVISION OF STEPHENS-ADAMSON MFG. COMPANY • 10 RIDGEWAY AVENUE, AURORA, ILLINOIS

FACTORY REPRESENTATIVES AND DEALERS IN ALL PRINCIPAL CITIES



Switching to Sunotex Machine Oil solved a troublesome staining problem for this manufacturer of papermaker's felts. Its superior adhesiveness keeps it on moving loom parts three times as long as the "adhesive" oil it replaced. Such slight spotting of felts as may occur is easily removed because of the complete scourability of Sunotex Machine Oil. Because of its fine performance, Sunotex Machine Oil is now used on every loom in this mill, including the 500-incher shown above.

THESE "JOB PROVED" SUN PRODUCTS IMPROVE QUALITY, HELP CUT COSTS



A mill making synthetic fabrics credits Sunotex RSO-48 for much of its reputation for product quality. Replacing an emulsifiable oil, a penetrant and a preservative, Sunotex RSO-48 improved warp-sizing uniformity; reduced "snowballing" of filaments during weaving; and cut formula costs 25%.

When a Sun representative recommends a lubricant or process aid, he does so with confidence. Every product developed in Sun's laboratories is exhaustively tested by actual use in industry until desired performance characteristics have been clearly established. Only then is it rated "Job Proved" and offered for sale.

In tackling your problems, a Sun representative draws on the wealth of experience he has acquired working in all fields of industry. And if the technical nature of your problem calls for it, one of a special group of Sun mechanical and chemical engineers will go to work in your behalf. Back of them, remember, are the vast research, development and refining facilities of Sun Oil Company. All of this is your assurance that Sun products will help you improve your quality and cut maintenance costs.

For the services of a Sun representative, call or write the nearest Sun Oil Company Office.

SUNOTEX TEXTILE-PROCESS AIDS

WOOL

SUNOTEX WO-220—Excellent for processing worsteds. "Tops" treated with it will not discolor during storage. It is readily scoured from the wool, leaving it in perfect condition for dyeing, even in the lightest pastels.

SUNOTEX WO-410 and WO-420—Both designed for worsteds and high-grade woolens. WO-410, with its lower viscosity, gives greater softness to knitting and blanket yarns. WO-420 has a higher viscosity and is used to overcome possible excessive friction during weaving.

SUNOTEX RSO-48 and RSO-321—Have high anti-static properties, are ideal for use where humidification is not available. RSO-48 is used in processing knitting and blanket yarns; RSO-321 for weaving yarns.

SUNOTEX TS-48—Ideal for processing dyed wool stock and yarns. Although it can be scoured easily from fabrics, small quantities are often permitted to remain in overcoating, blankets, carpets, etc., because it does not stain or develop objectionable odors.

SUNOTEX RWO-420—Recommended where surface lubrication of wool is essential . . . the ideal substitute for lard oil. Adapted for use in spinning suitings, blankets, carpets, felts, and wherever wool blends are used. Retains its outstanding scourability properties for long periods.

SUNOTEX TSO-615—An inexpensive product for lower-quality wool blends and blends of reworked wool. Has sufficient body to protect fibers during picking. Eliminates fly and static problems.

SYNTHETICS

SUNOTEX RWO-48—A softener and plasticizer for gelatin and other binders in sizing of viscose and acetate rayon warps. It provides excellent penetration of size, uniform sizing, and smoother sizing surfaces on the threads, thus minimizing "snowballs" during weaving.

SUNOTEX RSO-48—Contains all the advantages of RWO-48 but with an added anti-static agent. Well suited for processing nylon and for similar applications where static is a problem.

SUNOTEX TS-48—Recommended as a trough oil on full-fashioned hosiery knitting machines. Also a versatile, all-purpose fiber lubricant for processing viscose, acetate, nylon, cordage and mercerized cotton.

SUNOCO FIBRLUB L-220—A nonemulsifiable coning oil used in the throwing of nylon for full-fashioned hosiery. Provides protection by lubricating the sized thread, reduces "roll," increases snag resistance, prevents corrosion, and produces a more uniform stitch formation.

COTTON

538 COTTON CONDITIONER—Small amounts of this product are sufficient to "lay the fly." Its use results in a cleaner mill, better health of employees, and increased yield of cotton.

ASBESTOS

ASBESTOS FIBER CONDITIONER—Sprayed on asbestos during processing to keep fiber from being damaged or broken. Harmful dust is minimized when this product is used.

CORDAGE

CORDAGE OILS—Keep cordage and binder twine pliable over a long period of time. Stay put . . . don't squeeze out. Easily blended with additives.

TEXTILE MILL LUBRICANTS

SUNOTEX MACHINE OIL No. 350—One lubricant for nearly every type of textile machine. A high-quality mineral oil compounded to prevent rust, cling to moving parts, and minimize wear. Scours out of all kinds of fabrics easily and completely, leaving no discoloration.

A wool processor increased his yield 3 percent when he changed to a Sun Textile-Process Aid. It improved the quality of his finished product, speeded production by saving preparation time and penetrating the wool fibers quickly and thoroughly.

SUNOTEX MACHINE OIL LIGHT No. 150—A lubricant with the same properties as Sunotex Machine Oil No. 350, but lighter in viscosity. For needles, sinkers and related parts of knitting machines.

SUNVIS 900 OILS—Unexcelled for spindles; available in viscosities for most speeds and designs. Also for turbines, for use as a hydraulic medium, and for circulating systems requiring longest possible oil life. Because of their stability, Sunvis 900 Oils often outlast the equipment in which they're used.

SUNTAC OILS—Recommended for general lubrication of bearings, gears, chains, cables, couplings and linkages to eliminate "throw-off." Also for hydraulic systems of old equipment where leakage is a problem. Compounded to be adhesive, Suntac Oils cling to bearing surfaces and supply constant, superior lubrication.

SUN ADHESIVE PRESSURE GREASES—For chains, slides, cams, sprockets, open gears, cables, couplings, linkages, etc., where "throw-off" with resultant wear and spotting must be avoided. Applied without preheating.

SUN ROLLER BEARING GREASES—For ball or roller bearings in electric motors, generators, and machinery operating at normal or high temperatures.

A cotton fabric manufacturer ended corrosion troubles by switching to a Sun Textile-Process Aid. At the same time he improved the quality of the fabrics, speeded up production, and widened his profit margin. In oil costs alone, he now saves about $1,000 a year.

Production of perfect nylons in this mill had been greatly reduced by oils which permitted rust to interfere with the precision-adjusted mechanisms of the machinery. A switch to Sunotex Machine Oil ended the problem and restored production to rated capacity.

SUN INDUSTRIAL PRODUCTS

SUN OIL COMPANY, PHILADELPHIA 3, PA. • SUN OIL COMPANY, LTD., TORONTO AND MONTREAL

SUNOCO®

In Roanoke Mills' dye house, a Stainless Steel beam holding up 10,000 yards of thread is being loaded into a Stainless dye kettle. The kettle at the left is being covered prior to pumping in of dye.

Only STAINLESS STEEL is allowed to touch the thread in dyeing and slashing operations at Roanoke Mills

More than 100 colors and shades go into the upholstery fabrics which Roanoke Mills produces at its Number 2 mill at Roanoke Rapids, N. C. To safeguard its thread through the dye house and slasher rooms, the firm allows it to touch nothing but Stainless Steel.

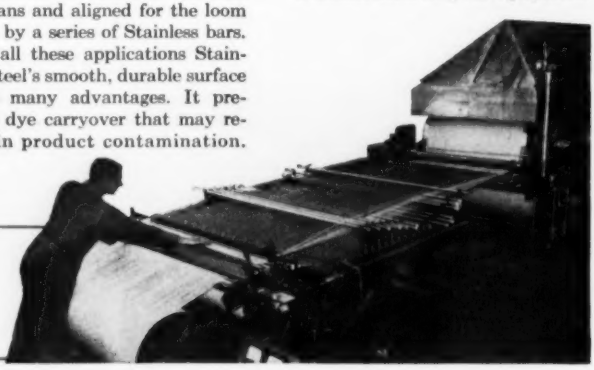
Most of the dyeing takes place on 10,000-yard capacity Stainless beams in six Stainless Steel beam dye kettles. These kettles, used for bleaching as well, have been in service five years, and, according to the Maintenance Superintendent Robert T. Howell, "show no signs of use, let alone deterioration."

Dye is mixed in Stainless vats, stored in 350-gallon Stainless tanks and delivered to the kettles by a Stainless pump through Stainless pipe and fittings. Part of the cotton is dyed before warping, and excess dye and moisture is removed by Stainless baskets in three Tolhurst centrifugals.

In the slasher room, starch is cooked in Stainless kettles, agitated by a Stainless paddle, and delivered to the slasher by a Stainless pump. The yarn is sized through a Stainless Steel size box with Stainless Steel rolls and is dried on Stainless dry cans and aligned for the loom beam by a series of Stainless bars.

In all these applications Stainless Steel's smooth, durable surface offers many advantages. It prevents dye carryover that may result in product contamination. Cleaning is quicker and more thorough. And Stainless equipment gives years of service without replacement and with minimum maintenance. In the words of Mr. Howell, "It's the most satisfactory material we have used."

Take advantage of the benefits of Stainless Steel in your mill. And for the finest performance, insist on perfected, service-tested U·S·S Stainless Steel for your equipment.



In the slasher room, thread comes off the Stainless Steel dry cans and is wound onto a spool for transfer to the loom. Bars of Stainless tubing that help align the threads can be seen in the center of the picture. The Stainless Steel dry cans on this slasher were manufactured by the Cocker Machine and Foundry Company, Gastonia, N. C.

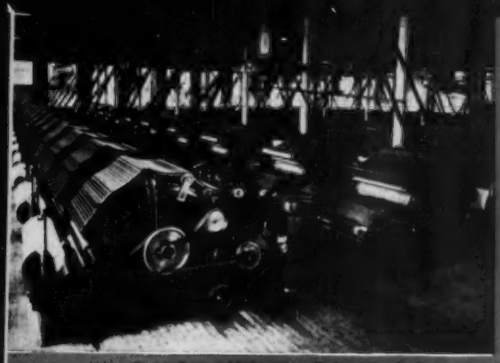
U·S·S STAINLESS STEEL

AMERICAN STEEL & WIRE . . . . COLUMBIA-GENEVA STEEL . . . . NATIONAL TUBE . . . . TENNESSEE COAL & IRON
UNITED STATES STEEL SUPPLY, WAREHOUSE DISTRIBUTORS . . . . *Divisions of* **UNITED STATES STEEL COMPANY, PITTSBURGH**
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

USS

2-191

UNITED STATES STEEL

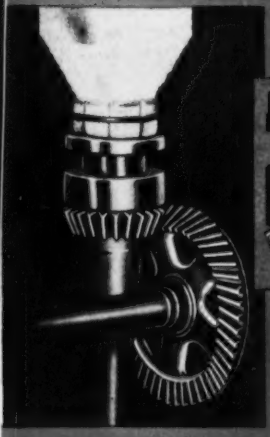


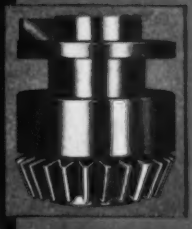
Card Room Licker-ins, Fafnir Equipped

Typical Licker-in Application

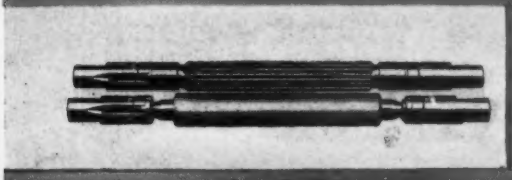
Licker-in Unit for Saco-Lowell Card

Drive Shaft Unit for Saco-Lowell Drawing Frame





Roving Frame Bobbing Gear — American Engineering Corporation



Medley Drawing Frame Top Roll — Fafnir Equipped.

TURNING POINTS
to greater efficiency in Carding Operations

If manpower shortage is a threat, perhaps the wider use of ball bearing equipment can ease this situation for you. In the modern card room where original settings must be maintained for continuous uniform production on lappers, combers, drawing frames and roving frames, Fafnir Ball Bearing Textile Units are making an important contribution to increased efficiency. For example, a lapper will make a better, firmer lap if the calender racks are fitted with anti-friction rollers. It will make an evener lap if the apron and evener mechanism is equipped with anti-friction bearings.

Turn to Fafnir Ball Bearing Units for the answer to how to increase the efficiency of your carding operations. Both standard and special textile units are available for this textile process. Many units feature the famous Fafnir Wide Inner Ring Bearing with self-locking collar . . . easiest of all to install. Write for catalog. The Fafnir Bearing Company, New Britain, Conn.

Other FAFNIR UNITS for Carding

- Licker-in Unit for Whitin Card
- Pillow Block for Roving Frame Bobbin Gear Drive Shaft
- Doffer Unit for Whitin Card
- Hanger Box with Grease Trap for Card and Weave Room Service
- Bearing Unit for Roving Frame Bobbing Gear

FAFNIR
BALL BEARINGS

MOST COMPLETE LINE IN AMERICA

NEW PACKAGED G-E SLASHER DRIVE WINDS MORE YARN PER BEAM

Automatically-controlled warp tension is maintained on this slasher by a G-E packaged slasher drive (control panel in foreground). Soft spots in the beam are reduced and yarn elasticity kept high.

Compact, flexible drive also cuts yarn breaks at large Eastern mill

A new General Electric packaged slasher drive was recently installed at Mohawk Carpet Mills, Amsterdam, N. Y., to size carpet-backing yarn. In this new drive, G-E adjustable-voltage d-c speed control is combined with G-E amplidyne tension control in a single, simple "package." Already the new drive has proven itself—in more yardage on the beam, fewer ends down at the loom!

COSTS LESS—THREE WAYS!

Low first cost: Mass-produced parts reduce unit price.

Low maintenance cost: Filters keep lint out of power unit; all parts are easily accessible.

Low installation cost: Just set the power pack in place and run in the conduit—costly interwiring is eliminated, space saved.

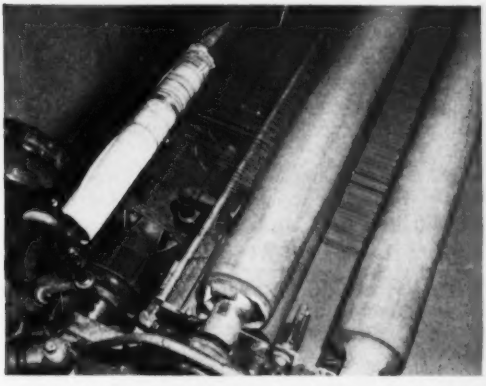
Like to learn more? Call in your G-E Textile Mill specialist. *General Electric Co., Schenectady 5, N. Y.*

PACKAGED SLASHER DRIVES FOR TEXTILE MILLS

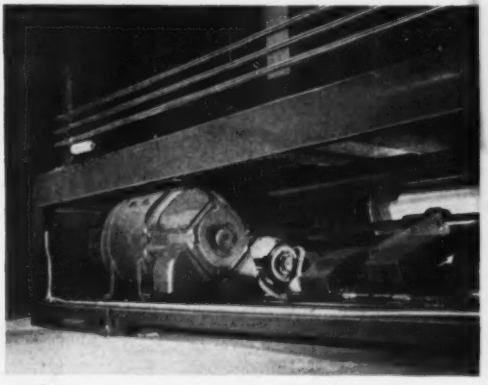
Motor "know-how" for your workers! General Electric's new Motor Selection and Application Course, an easy-to-understand visual program, can help you keep your electric equipment at top efficiency. Shows how motors work, types in use, how to select and apply them. Write for Bulletin GEA-4938-16.

1 **Compact power "package"** contains G-E motor-generator set, amplidyne, booster, exciter, and control panel—needs no special foundation. It supplies d-c power for 4 slasher-drive motors.

2 **Conveniently-located** "Fast-Slow-Stop" push-button station at operator's left is one of several for controlling speed of the entire slasher. Motor shown at bottom is a 3-hp splashproof G-E gear-motor.



3 **Completely protected** against size, this 3-hp totally-enclosed G-E gear-motor (left of size box) drives size box rolls. Speed can be adjusted to stretch or shrink yarn between size box and dryer cylinders.



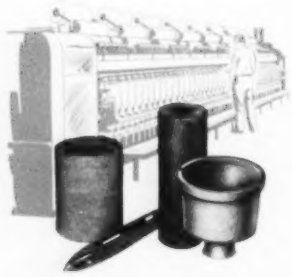
4 **Tension stays constant** as beam builds up—7½-hp splashproof G-E gear-motor changes beam roll speed in response to amplidyne. The .5-hp delivery-roll motor, right, permits desired beaming tension.

GENERAL ELECTRIC

65423

micarta is basic!

In vital places in the textile industry



TEXTILE INDUSTRY

Bobbins, shuttles, spools and lap rolls are typical of MICARTA products which are vital elements in textile production. Its tough, light, long-wearing qualities offer infinite possibilities in the growing textile industry.

MICARTA® helps keep key machines productive. It is a basic material . . . a versatile plastic which outlasts metal and wood in many punishing applications. Bobbins, shuttles, spools and lap rolls are only a few of the many MICARTA products paying their way in your industry.

MICARTA safeguards yarns and fabrics. It won't chip or splinter. It wears evenly and smoothly, absorbs shock and vibration, resists heat and cold.

This lighter-than-aluminum material can be machined, formed or molded easier and more economically than metal. Protect your vital applications with MICARTA. Westinghouse Electric Corporation, MICARTA Division, Trafford, Pennsylvania. J-06448-A

Got an absorbing problem?

. . . Houghton's knowledge of surface active agents can very probably help you find the right answer.

The formulas we've developed to make liquids wetter . . . to make "unmixables" mix . . . to make dry materials absorb water many times their weight . . . are being put to work by mills like yours in solving their processing problems today.

Suppose you're finding dyes aren't taking hold evenly—resulting in off-color work. Or scouring costs are skyrocketing. Or maybe you have a special production problem where a *new* type of surface active agent fits in. These are signals to call on our textile experience for thoughtful aid.

Houghton research is forever busy finding new ways to process textiles better, faster, surer—opening up new possibilities in mill economies. Ask your Houghton Man. If he can't help you on the spot, he knows he can get the answers "back home" at E. F. Houghton & Co., Philadelphia 33, Pa.

IT WILL PAY YOU TO KNOW THE HOUGHTON LINE OF *10 WET PROCESSING AGENTS* . . .

CERFAK { the trade name to specify when *detergency* is the chief factor you want.

SURFAX { selected whenever exceptionally good *wetting* and *re-wetting* power is needed.

. . . products of

E. F. HOUGHTON & CO.

PHILADELPHIA · CHICAGO · DETROIT · SAN FRANCISCO

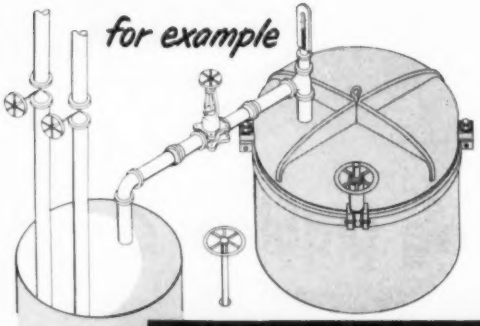
Ready to give you on-the-job service . . .

For more information, write direct or use Reader Service post card.

Is Corrosion Your Valve Problem?

...on Acid Solutions Like This,

for example



THE INSTALLATION

In acid dye line to package dye machine at Phoenix Dye Works, Chicago, Ill.

VALVE SERVICE RATINGS

SUITABILITY:	O.K. for acid dye solutions
MAINTENANCE COST:	None; lubrication only
CORROSION-RESISTANCE:	Excellent; no sign of corrosion
SERVICE LIFE:	Good as new after 3 years' constant service
OPERATING RESULTS:	No leakage; no production loss easier valve operation
PRICE:	In line with good alloy valves
AVAILABILITY:	Regular item in Crane alloy line

THE HISTORY

Various valves and cocks previously tried in this service gave much trouble with leakage and sticking, needing excessive maintenance and lasting only 1 to 2 months at best. Valve almost constantly in contact with varying acid dye solutions at temperatures ranging from 50 to 210 degrees F. Operated about 100 times daily, often with disc in throttling position.

Since installing a Crane No. 18850 all 18-8 Mo Stainless Steel Plug Gate Valve—more than 3 years ago—user reports: no leakage through valve . . . no sign of corrosion . . . no maintenance expense . . . unusually easy operation. Highly enthusiastic about Crane Plug Gate Valves.

THE VALVE

One of the finest in the Crane line for corrosive service—No. 18850 Plug Gate—with 18-8 Mo stainless steel in all parts exposed to flow, including packing gland. Circular tapered plug seating performs with equally high efficiency on precise throttling or where unrestricted flow is needed. These valves also made in all Monel. See your Crane Catalog or Crane Representative.

The Complete Crane Line Meets All Valve Needs. That's Why,

More Crane Valves Are Used Than Any Other Make!

CRANE VALVES

CRANE CO., *General Offices:* 836 S. Michigan Ave., Chicago 5, Illinois

Branches and Wholesalers Serving All Industrial Areas

VALVES • FITTINGS • PIPE • PLUMBING • HEATING

For more information, write direct or use Reader Service post card.

"DOWNTIME-SAVERS"

Condor V-BELTS

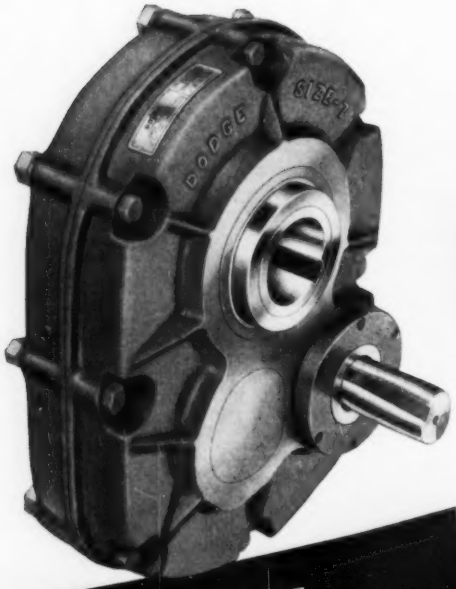
You save downtime for belt take-up and belt replacement when you use Condor V-Belts. There are good reasons . . . Condor V-Belts are destretched and balanced by R/M engineering during manufacture . . . and they are made with straight sidewalls for more grip. As a result, each Condor V-Belt in a multiple drive pulls its share of the load without stretching, sagging or slipping. That's why, all Condor V-Belts run longer, save time and money • Bulletin 6868-E, "Grips the Grooves," describes other advantages of the "Smoothest Running V-Belts Made." Write for it, or call your R/M Distributor.

R/M

MANHATTAN RUBBER DIVISION—PASSAIC, NEW JERSEY

RAYBESTOS-MANHATTAN, INC.

Other R/M products include: Industrial Rubber • Fan Belts • Radiator Hose • Packings • Brake Linings • Brake Blocks Clutch Facings • Asbestos Textiles • Sintered Metal Parts • Bowling Balls



A NEW SIZE!

43 H.P.

DODGE TORQUE-ARM

The Speed Reducer that saves you real money!

Here it is—the big size that enthusiastic Torque-Arm users have been asking for! Engineered for the same dependable performance and same economy that have made Dodge Torque-Arm Speed Reducers a nation-wide sensation.

- The new "big brother" of the famous Torque-Arm family. Double reduction. 43 hp capacity. Output speeds from 12 to 110 rpm.
- Rugged. Dependable. *Economical.* No special engineering required. No foundation to provide. No flexible couplings. No "lining up" difficulties. No expensive installation.
- Stock TAPER-LOCK sheaves prescribed for each job provide desired speeds. Applications to other machines is practical and easy.
- Unit is driven through any V-belt drive. A torque arm, fastened to any fixed object, anchors the reducer unit. Turnbuckle provides fast and accurate adjustment of belt tension.
- Backstop available from stock when required. Easily installed. Sealed and lubricated inside reducer housing.
- Dodge Tri-Matic Overload Release, which provides positive protection for driven machines both mechanically and electrically, is available from stock.
- Dodge Torque-Arm Speed Reducers are built in two series—Single and Double Reduction. Eleven sizes in all, with capacities from 1 to 43 hp and output speeds from 13 to 333 rpm. All available from distributors' stocks.
- WRITE for special Torque-Arm bulletin.

DODGE MANUFACTURING CORPORATION
1400 Union Street • Mishawaka, Indiana

DODGE
of Mishawaka, Ind.

CALL THE TRANSMISSIONEER, your local Dodge Distributor. Factory trained by Dodge, he can give you valuable assistance on new cost-saving methods. Look for his name under "Power Transmission Equipment" in your classified phone book.

SEALED-LIFE V-BELTS AND TAPER-LOCK SHEAVES

DODGE-TIMKEN PILLOW BLOCKS

SOLID STEEL CONVEYOR PULLEYS

PUTTING IT ON THE LINE...

in Industry after Industry!

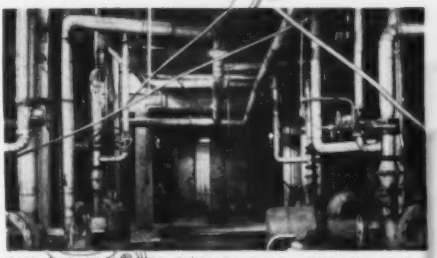
The Grinnell-Saunders Diaphragm Valve . . . . . .

Here's why . . . Piping in today's complex industrial plants is an exacting science involving the handling of highly corrosive fluids, gases, compressed air, beverages, foods and suspended solids . . . in lines where corrosion, abrasion, contamination, clogging, leakage and maintenance are costly factors. Under such conditions, the amazing adaptability of the Grinnell-Saunders Diaphragm Valve explains its acceptance by industry after industry.

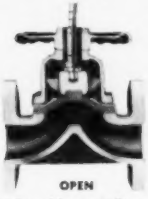
Bodies of this versatile valve are made in a variety of metals — iron, stainless steel, bronze, aluminum and others. *But of more importance* is the fact that a body of cast iron (a metal not in short supply) can be lined with glass, lead, natural rubber, neoprene and other materials which, in many instances, handle corrosive fluids *better* than metals.

Diaphragms come in natural rubber, neoprene, butyl, hycar, a special synthetic for foods, and KEL-F. This last is chemically inert to all acids and alkalies in all concentrations with the exception of molten alkali metals.

From this broad selection of materials, the problems which the Grinnell-Saunders valve can solve are extremely varied. No wonder industry after industry is putting it on the line.



PULP AND PAPER MILL. Rubber-lined Grinnell-Saunders Valves on stainless steel piping handle sulphate pulp stock in bleach plant of Potlatch Forests, Inc., Lewiston, Idaho.

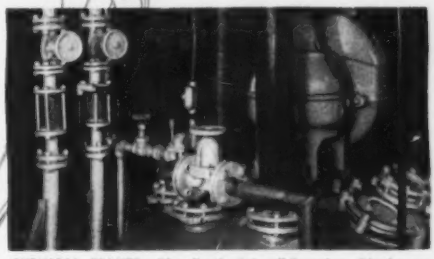


OPEN

Showing rising spindle . . . valves are available with rising or stationary spindle.

CLOSED

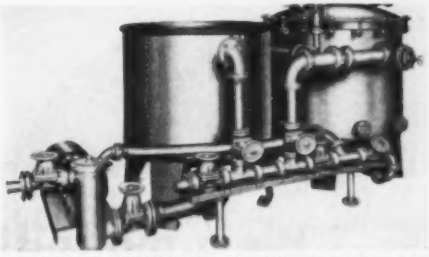
KEL-F diaphragm, using special rubber backing cushion and floating tube nut design.



CHEMICAL PLANTS. Glass-lined Grinnell-Saunders Diaphragm Valves, with KEL-F diaphragms, handle chlorinated organic chemicals at Hooker Electrochemical Company, Niagara Falls, N. Y.

CHECK THESE GRINNELL-SAUNDERS FEATURES...

- Diaphragm absolutely isolates working parts from the fluid.
- Diaphragm lifts high for streamline flow in either direction.
- Diaphragm presses tight for positive closure.
- Body, lining and diaphragm materials to suit service.
- Simple maintenance — diaphragm easily replaced.



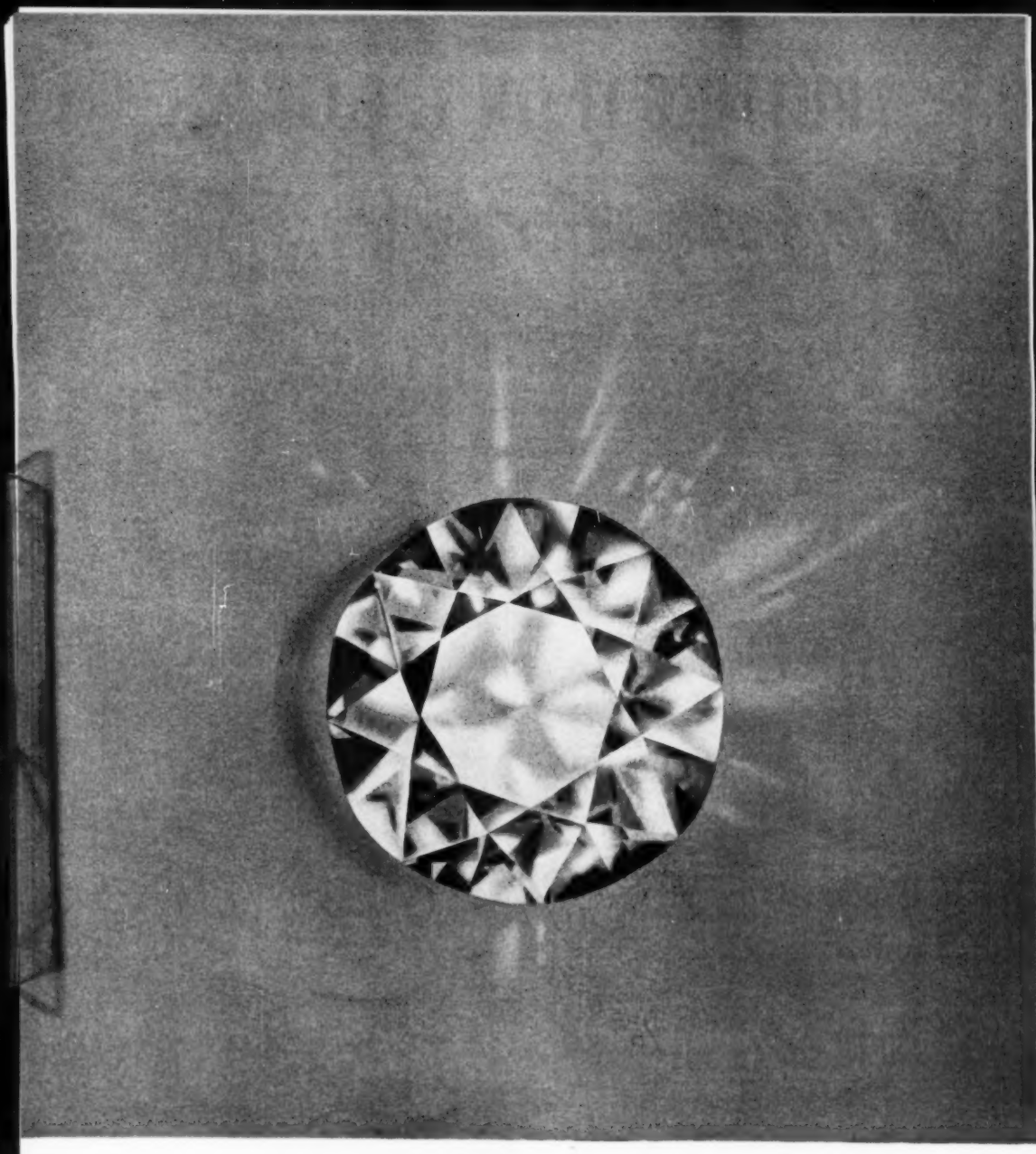
EQUIPMENT MANUFACTURERS. Grinnell-Saunders valves with rubber linings are standard on filtration equipment for solution clarification, made by Industrial Filter & Pump Mfg. Co., Chicago, Ill.

GRINNELL

WHENEVER PIPING IS INVOLVED

Grinnell Company Inc., Providence, Rhode Island • Sales Offices and Warehouses in Principal Cities

pipe and tube fittings • welding fittings • engineered pipe hangers and supports • Thermolier unit heaters • valves
Grinnell-Saunders diaphragm valves • pipe • prefabricated piping • plumbing and heating specialties • water works supplies
industrial supplies • Grinnell automatic sprinkler fire protection systems • Amco air conditioning systems



It's a magnificent diamond—

Cullinan Diamond, three times the size of any known diamond, weighed 3025¼ carats (1⅓ lb.) when found in 1905. Divided in 1908, two of its stones remain the largest brilliants in existence.

BUT how does it compare with the Cullinan? ... In everything we do, we make comparisons . . . In Full-Fashioned Knitting, the one standard for comparison is the 30-section "Reading" Machine with a production of 14 to 16 dozen pairs of superior quality stockings in 8 hours. 51-gauge, 60-gauge.

TEXTILE MACHINE WORKS • READING, PENNA.

Where you will find THE REAL REVOLUTION

"If we keep in mind the values of opportunity, competition, democracy, productivity, then it is our capitalist society which is the truly revolutionary one – the only society which offers true hope to the masses for release from the long nightmares of tyranny. It is we, not the Marxists with their reactionary ideas of the good dictator, who have the truly constructive, the truly revolutionary ideal."

– from "Capitalism" by David McCord Wright.

If we can only win recognition of this truth, we shall win the struggle of free men against communism. This editorial discusses some of the hurdles that must be cleared.

To win the needed recognition that "our capitalistic society... is the truly revolutionary one," we must keep pounding away both abroad and at home. That is because the communists simultaneously attack us on an international front and try to undermine us from within.

The present drive to rearm ourselves and our allies is crucial to our self-protection on the international front. We must be prepared to meet the armed force of aggressive communism with armed force if we are to secure our physical freedom.

Arms are not enough

But to re-establish parity in arms is only half of the battle. In the last analysis it is not the more important half. To be effective, our arms must be backed by loyalty of men to our ideals. So, both abroad and at home, we must win men to the faith that we do have "the truly constructive, the truly revolutionary ideal."

On the international front, the effort to win adherence to such faith in our capitalist society meets tough going. That arises from the fact that in some of the countries that are allied with us in the fight against communism, capitalist society has offered to its people no such ideal. In varying degrees "the values of opportunity, competition, democracy, productivity" – those key aspects of American capitalism – are either absent or subordinated in their economic life. Indeed, the *Wall Street Journal* recently remarked that "to the European, capitalism has become synonymous with cartels – and with the disregard cartels foster for the consumer, the worker and the over-all well-being of the nation's economy."

No Simple Solution

Nonetheless, many European labor and governmental leaders sincerely believe that cartels are essential to their economic salvation. They believe that without such restrictions in congested European markets there would be intolerable cut-throat competition and instability of employment. Thus, when we point out that the cartel capitalism so prevalent in Europe lacks the constructive qualities of competitive American capitalism, we may offend European leaders whose wholehearted cooperation we need in the fight against communism.

But, if we soft-pedal that contrast, we sacrifice the opportunity to win understanding and loyalty from millions of Europeans who have had no chance to learn that capitalism can be the constructive and liberalizing force that it is in the United States. Indeed, when many of these millions embrace socialism it is not because they love it. They are rather desperately seeking a tolerable middle course between what they consider the hateful extremes of communism and the undesirable aspects of capitalism as they understand it.

New name not the answer

We know that there is no easy way to handle the problems created by such misunderstanding of American capitalism. Neither do we share the belief that much of the difficulty would be overcome if we were to call American capitalism by some other name. By doing that, the argument runs, we shall relieve it from the unpleasant connotations that are attached to the word capitalism in some other parts of the world. But, after all, if we are to give up all the terms that have come to mean something else in other parts of the world, we must begin by ditching the term "democracy" which, in the official jargon of the Kremlin, seems to mean what we call dictatorship.

In spite of the difficulties, however, we must stick to this job of exporting the truth that our capitalist system does offer opportunity, competition and democracy. We must let the rest of the world see that it means a continuous drive for increased productivity, and the search for profits by increasing sales and consumption, not by trying to sell less for more.

Export alone not enough

The spreading of truth about American capitalism will not be effective if it is merely directed abroad. Unless it is carried on at home also, it will lack the driving faith that is essential to any convincing export of this type. Nor will export alone come to grips with the communist attack on our country from within—an attack that gets too much help from loyal Americans who short-sightedly repudiate the basic principles of our institutions in their efforts to reform some of their deficiencies. For success both at home and abroad, we must have right here at home a much more militant recognition that it is in fact our capitalist society which offers "the truly constructive, the truly revolutionary ideal."

Here at home, too, this raises difficult complications. Businessmen who are among the leaders and principal practitioners of capitalism, have generally been catalogued as conservatives. Hence, many people must stretch their imaginations a bit to see that businessmen are leaders of a development which has so greatly and so rapidly improved the lot of free men in America that it is truly revolutionary.

These difficulties of definition, however, are relatively superficial aspects of the problem of seeing our capitalist society clearly. The basic facts are that:

American capitalism is leading free men to an ever higher material standard of living while respecting their spiritual, social and political freedom.

Communism is leading its people back into a life of servile regimentation under dictatorship.

American capitalism advances to high ground never before attained by free men. Communism retreats to ground that men with an appetite for freedom throughout the ages have sought to escape. If we can establish this truth firmly, around the world, we shall no longer need to worry about communism. It will be hopelessly sunk.

McGraw-Hill Publishing Company, Inc.

TEXTILE WORLD
Vol. 102 -- APRIL, 1952 -- No. 4

Annual KNITTING Section

So You're Going Into Tricot? 106
From Start to Finish on the Single-Head F.-F Machine 108
How To Figure Production on Two-Bar Tricot Machines 109
How Drexel Knitting Mills Knits Argyle Socks 110
How To Get Good Workloads in Tubular Knitting 111
Tricot-Dyeing Methods Affect Fabric Strength 112
Seven Pointers That Help Full-Fashioned Knitters 114
Improved Methods and Layouts—Checklist for Tricot Knitters .. 116
Hosiery Conveyor Handles Up to 400 Doz. per Hr. 118

Annual **KNITTING** *Section*

So You're Going Into TRICOT?

▸ This article is intended for mills not in the tricot business. Perhaps you've given a lot of consideration to the question of adding tricot fabrics to your line of woven fabrics. What, then, are the points to consider upon entering this rather new and fascinating business?

By HOWARD S. STEVENSON
Senior Associate, Bruce Payne & Associates, Inc., Atlanta, Ga.

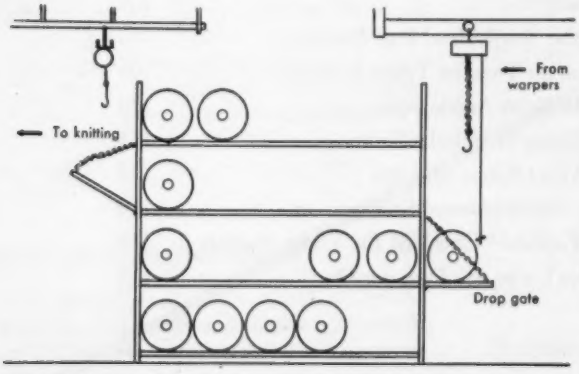
How's Your Floor Space?

If you don't have the floor space, of course you've got to add to your present plant or build a separate unit. How much? A single 168-in. tricot machine occupies 100 sq. ft. of floor space, exclusive of service area, and a normal layout of several machines will consume between 200 and 300 sq. ft. of floor space per machine including all service area.

The question of whether you will buy yarn on beams or do your own warping affects floor-space requirements.

If you warp your own beams, the floor-space requirements are higher. Each warper requires about 1,300 sq. ft., including service area.

How many machines will one warper service? Here we enter the realm of variables and are therefore unable to answer exactly. The variables are the quality of the fabric, the speed of the tricot machines, and the speed of the warpers. High-speed warpers can operate satisfactorily up to speeds of 400 yd. per min., but quality may dictate slower speeds. Generally speaking, you'll find that one warper can take care of 6 to 10 tricot machines.



STORAGE RACKS for tricot warps should be between warpers and knitters. A backlog of full spools is desirable.

How About Personnel Requirement?

There is no stop-motion device on tricot machines; so you may be knitting defects right into the cloth if a defect is not quickly detected. You'll need patrol hands to watch the production of 8 to 12 machines, but this figure depends upon the quality and number of allowable defects. The patrol hands act merely as stop motions and shut the machines off for the fixer, unless the defect is minor and can be remedied by the patrol hand. You may prefer to call the patrol hand knitters, but it is the mechanically trained person who maintains the machines and remedies fabric imperfections.

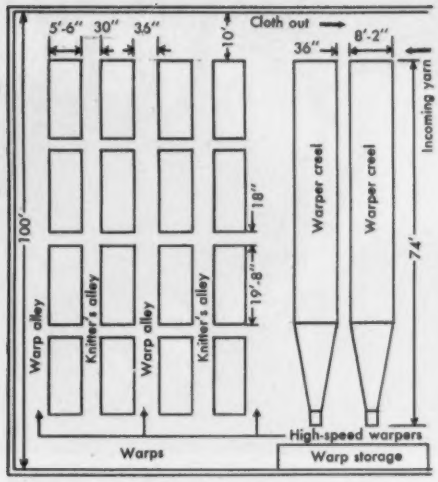
This person, the fixer, is the key to a well-run tricot room. He, or she, should be thoroughly familiar with the machines and should be assigned the number of machines that will best assure you of high efficiency, production, and quality. The fixer's load depends on local conditions and varies from 8 to 16 machines.

Layout Depends on Handling Equipment

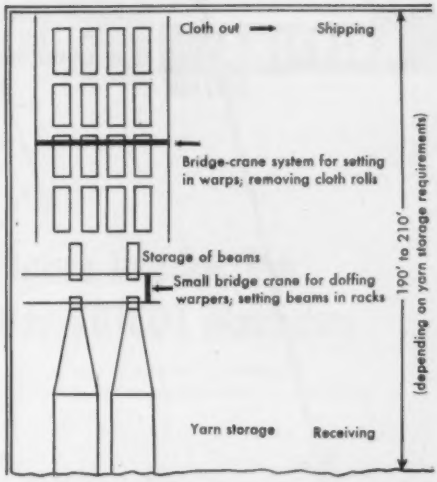
Since layout and materials handling go hand in hand, we must necessarily interject some if's, and and's, or but's to the layout problem. If you employ an overhead-bridge crane system for handling warps and cloth rolls, you can conserve floor space. A knitter's alley of 30 in. allows sufficient space for patrolling the machines and doffing the cloth rolls if you have overhead equipment. Likewise, a warp alley of 36 in. will allow access to the back of the machines and give enough room for a man to set in warps. But if the floor must be used for transportation of warps and cloth rolls, additional space must be provided.

You've got to have a backlog of warps. Therefore, storage racks for full spools are desirable.

The accompanying sketches show



IF YOU HAVE A LONG ROOM, you may be able to use this layout for straight-line flow. Bridge-crane systems provide handling of beams in and out of storage racks.


Cloth out
Shipping
Bridge-crane system for setting in warps; removing cloth rolls
Storage of beams
Small bridge crane for doffing warpers; setting beams in racks
Yarn storage
Receiving
190' to 210'
(depending on yarn storage requirements)

MOST EASILY ADAPTED to existing areas is this type of layout. One warper takes care of 6 to 10 tricot machines and requires about 1,300 sq. ft. of floor space.

alternate layouts. One is for a straight-line flow but requires a long room. The bridge-crane systems provide handling of beams in and out of the storage racks. The second layout can probably be more easily adapted to existing areas.

To Throw or Not To Throw

Another thing to consider is the economy of doing your own throwing. Zero-twist acetate can be purchased at less cost than high-twist yarn, but to take advantage of this possible saving raises the question: Do you have the facilities and capacity to take on this added operation?

Nylon yarn must be sized. To date, there's no other method of satisfactorily sizing nylon except single-end sizing. In addition to this added equipment, you'll need winding equipment and floor space to allow for "lagging time" of the sized yarn, which is 24 to 48 hr. The yarn on tubes is stored in conditioned air between the sizing and winding operations, usually on trucks, so that the yarn can be constantly moved in and out. The economies of such operations should be carefully investigated.

Coning production is approximately one-third that of sizing, since single-end sizers can be satisfactorily operated up to speeds in excess of 800 yd. per min. Therefore, three times the floor space is required for the coners than for the sizers.

To provide twisting, redrawing, siz-

(Continued on page 284)

What About Tricot?

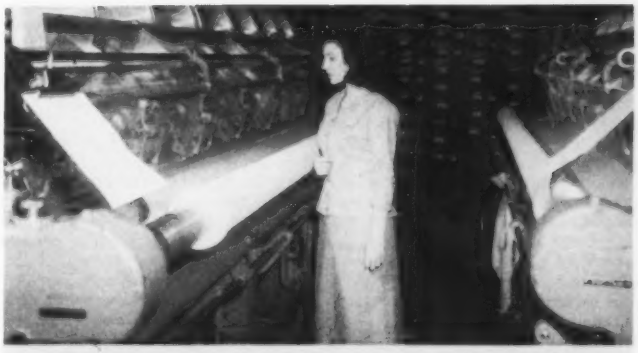
A weaver who saw his first tricot knitting machine said, "That's the way to make cloth fast."

A ladies' slip manufacturer said, "Tricot machines are like heads: Everybody's got one."

Tricot knitting is now going through a fast build-up of capacity, and many mills not now in tricot are seriously eyeing it.

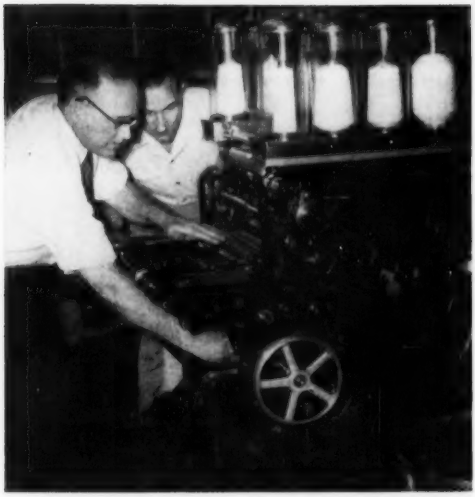
One of the main advantages is the speed at which cloth can be produced. Fabric is knitted in widths of 168 in. at a speed of 400 to 500 stitches per min., and a stitch is about equivalent to a loom pick. So, roughly, a tricot machine turns out cloth two to three times faster than a loom and twice as wide as most woven cloth.

Howard Stevenson, the author of this article, has helped engineer new tricot mills now in production. The questions he raises here are some of the vital ones every mill has to answer before it lays down the investment necessary for tricot knitters.



ONE PATROL HAND can watch the production of 8 to 12 tricot machines. The fixer, who maintains the machines and remedies fabric imperfections, can handle 8 to 16 machines. You can figure about 100 sq. ft. of floor space for each 168-in. tricot machine.

Annual **KNITTING** *Section*



TO START THE MACHINE lay the welt bar on the bridges on each front end of the machine. Put fingers of left hand lightly on welt bar and start the machine under power.

From Start To Finish On the SINGLE-HEAD Full-Fashioned Machine

By COY E. MARTIN
Head, Knitting Department
N. C. Vocational Textile School

HERE'S THE STORY on methods for the single-head full-fashioned, 54-gauge Wildman hosiery machine. From start to finish, you can follow these procedures to get best results from your machine.

For a Good Start-Up—

Lay the welt bar on the bridges on each front end of the needle bar. Put the fingers of your left hand lightly on the welt bar and start the machine under power. The welt bar automatically hooks itself on the first row of loops.

Now hook the welt straps to the hook-up bar. After a couple of courses, slur the machine to either side and stop it. Let the needle bar out to the first notch and, if any hook-up points miss hooking up, place a stitch over the needle that isn't knitting. Place the needle bar back in and start the machine.

Caution—make sure the fabric is down before the needle bar is put back in.

Place the picot bar in operating position. The machine will picot in the middle of the welt, and at the transferring point the machine will stop. Then finish slurring the machine to the extreme right. Run the needles all the way down and fully back up. Do this by hand. Be careful, and be sure to stop when the yarn carrier starts to move.

In Turning the Welt—

Remember, after the yarn carrier starts to move, stop turning the machine. This is the time to pick up the needle bar. Turn the needles toward you and slide the fabric to the bottom of the shank of the needles. Then turn the needle bar over the needles toward the machine and place the hook-up bar in the holders in front of the narrowing points.

1. Place the welt rod in the welt between the folded fabric.

2. Catch the needle-bar handle and release the needle bar. Allow the needles to come back against the hook-up bar easily, for the needles have to get into the grooves of the hook-up points to transfer.

3. Place your left hand in the middle of the fabric, and press the fabric down with your right hand. This action transfers the fabric from the hook-up bar to the needle bar.

4. If any loops miss being transferred, unhook the loops from the hook-up point with a needle butt.

5. Pull the needle-bar handle and allow the needle bar to go in one notch.

6. Remove the hook-up bar and put it in the holders between yarns.

7. At this point, place any dropped stitches on needles and push the fabric down on the needles. The fabric should go in under the nose of the sinkers and dividers when the needle bar is all the way in. Pull the yarn above the pan and turn the machine by hand until sinkers and dividers start to slur from right to left; then start the machine with power.

Turning the welt is complete at this point. The shadow welt is starting, and the picot points once more. The picot bar comes out of operation at the end of shadow-welt knitting. Turn the picot bar back and clip the welt yarns.

In Knitting the Leg—

The machine knits 42 courses before the fashion marks start. A fashion mark is made by placing one stitch or loop on top of another on the same needle. The machine knits 14 courses between each fashion mark. There are 16 fashion marks in the top part of the leg, with 14 courses between each one.

When the fashioning has stopped, the same size of leg is finished until the narrowing points and yarn carriers

start to narrow in. This narrowing causes the stocking to be smaller in the lower part of the leg.

In narrowing the stocking, the yarn carries in with the narrowing points. The narrowing points pick up a number of stitches from the needles and place one stitch on one needle over on both sides of the stocking every eight courses. Another fashion mark is thus put in the small part of the leg. This operation goes on 44 times and stops about 4 in. before high splicing starts.

To Knit the High-Spliced Heel—

The machine starts knitting the high-spliced heel about 4 to 6 in. after narrowing in the leg stops, and splicing involves another carrier and yarn on each side. These yarns are knitted in with the main leg yarn and only knit for about 2 in. on each side. To widen the heel, the narrowing points go into operation. The points pick up the fabric and widen it one needle on each side. This operation goes on for 56 cycles every other course.

Plain knitting then takes place for 12 to 15 courses, narrowing on the point or curved part of the heel. The narrowing points go back into operation and narrow 26 to 28 times, one needle on each side every course.

Then you have plain knitting for 38 to 40 more courses and narrowing starts again. Narrowing on the bottom of the heel, with the narrowing points back in operation, takes place every course for 28 to 30 courses. Now the fabric is back to a narrow width for foot knitting. The splicing is still in and will knit from the high-spliced heel throughout the looper waste.

Foot and Toe Knitting—

After the last narrowing in the heel, there are four more places of narrowing on every three courses. These narrowings indicate half sizes, which start with Size 8. This stocking has four narrowing points; so this size would be Size 10.

Knitting of the foot goes on about 4 to 5 in. before the yarn and carriers start to narrow in.

The yarn carriers narrow in every other course for about 5 in. before the leg yarn comes out. This narrowing is to put a heavier fabric over the bottom of the foot and around the toes.

Clip the main leg yarn after this carrier comes out of action. Wait until another inch or two has been knitted before you grasp the main leg yarn. Don't pull it at all, or you will make a row of tight stitches and cause a second.

Narrowing the toe: After the main

(Continued on page 286)

Annual **KNITTING** *Section*

How To Figure Production On Two-Bar TRICOT Machines

Method used by HOWARD S. STEVENSON
Senior Associate, Bruce Payne & Associates, Inc., Atlanta, Ga.

1. Speed	Stitches per min.
2. Rack	400 stitches
3. Quality	In. of fabric per rack
4. Top runner (spool)	In. of yarn per rack
5. Bottom runner (spool)	In. of yarn per rack
6. % Take-up (top runner)	$100\% - \frac{\text{item 3}}{\text{item 4}}$
7. % Take-up (bottom runner)	$100\% - \frac{\text{item 3}}{\text{item 5}}$
8. 100% yd. fabric per hr.	$\frac{(\text{item 1}) \times (\text{item 3})}{288}$
9. Yd. yarn per Lb. yarn	$\frac{4{,}464{,}516}{\text{denier}}$
10. Ends per spool	Predetermined
11. Spools per set (top)	Predetermined (Usually 4 or 8 depending on length)
12. Spools per set (bottom)	Predetermined (Usually 4 or 8 depending on length)
13. Ends from top spools in fabric	(item 10) × (item 11)
14. Yd. yarn per yd. fabric (top)	$\frac{\text{item 13}}{100\% - \text{item 6}}$
15. Lb. per yd. fabric (top)	$\frac{\text{item 14}}{\text{item 9}}$
16. Ends from bottom spools in fabric	(item 10) × (item 12)
17. Yd. yarn per yd. fabric (bottom)	$\frac{\text{item 16}}{100\% - \text{item 7}}$
18. Lb. per yd. fabric (bottom)	$\frac{\text{item 17}}{\text{item 9}}$
19. Total lb. per yd.	item 15 + item 18
20. 100% lb. fabric per hr.	(item 8) × (item 19)

Annual KNITTING Section

How Drexel Knitting Mills Knits ARGYLE SOCKS

By JAMES H. KENNEDY
Southern Editor, TEXTILE WORLD

THE HOTTEST THING in hosiery today is big argyles on Banner machines," said R. P. Shapard, Jr., TW's consulting editor in that field. So TW visited Drexel Knitting Mills, Drexel, N. C., to get the story of how a "hot" product is made by a good mill.

At Drexel, three knitters are running 44 argyle machines, and one fixer takes care of all the machines. Production is about 350 doz. per three-shift day, and seconds are only 12% finished. Here's how they do it.

Workloads Determined Machinery Purchase

When Drexel wanted to get some argyle machines, they went at it the smart way. One fixer could take care of 44 machines, it was learned, and three knitters could tend that number. So 44 machines were purchased in August, 1950. The Argyle machines are 108-needle Banner models made by Hemphill Co., Providence, R. I.

The 44 machines are laid out in three rows—two rows of 15 each, and one row of 14. There's plenty of space to work. Alleys are 5 ft. wide.

Training Time Was Short

The mill picked a good fixer to train for the new machines and sent him to the Hemphill works for a couple of weeks before the machines were installed. (He has been back to Hemphill a few times since to keep up with the latest techniques).

Only experienced knitters were put on the argyle machines. Training time for these knitters was only a week or two. It would take a new employee 3 to 4 mo. to take over a job, though.

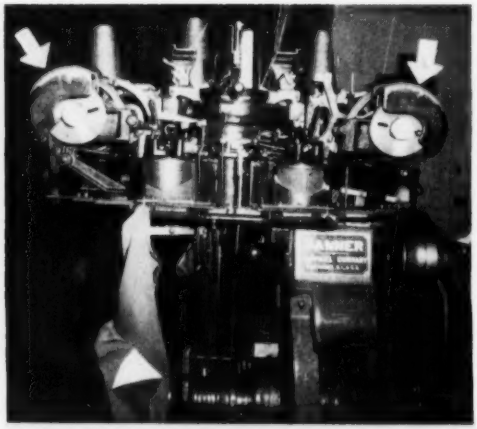
Knitters Inspect and Clip

A large part of Drexel's success with these machines is attributed to the fact that knitters inspect and clip right at the machine. Why is this good? Because, first of all, the operator knows before another stocking is finished if there is anything going wrong. Clipping helps because some defects don't show up until after clipping. In this way, the girl knows at all times how each of her machines is doing.

Another job the knitters do is tie the stockings into 1-doz. lots. Colored looper clips are used in addition to a tag. If the tag gets lost, there's no confusion about what size the lot is—the colored looper clip identifies the size. Another advantage to the color system is in sorting. It's lots easier to recognize a color than it is to read a tag to determine the size. A different color is used for each size.

(Continued on page 292)

WIDE ALLEYS give plenty of elbow room. Fully air conditioned, the room is kept at 83° F. and 45% r.h. in winter and summer.



WHITE LINES on each of the pattern kick wheels help both the knitter and her boss to tell at a glance if machine is running. Stocking hung on machine is signal for fixer.

Annual KNITTING Section

How To Get Good Workloads in TUBULAR KNITTING

By E. DALTON WHITE
McGraw-Hill Atlanta Bureau

MACHINE LAYOUT, grouping of head sizes, and the number of machines assigned a knitter are important factors in estimating workloads for the production of quality tubular-knit fabrics.

If a series of styles and sizes are run continuously for a long period of time, the problem for workloads is greatly simplified. But such an operation is not always possible, especially in smaller operations.

Typical of a mill producing a great many styles and sizes is Griffin Knitting Mills, Inc., Griffin, Ga., which produces special numbers in men's, boys' and children's ribbed cotton underwear, men's and boys' sweat shirts, infants' vests, and T-shirts. Here's how they attack some of their problems.

Each Order Calls for a "Recap"

While past experience and operational procedures provide a fairly accurate estimate of proportioning workloads and production scheduling, each new order places certain limitations that must be taken into consideration when a new flow is to be established.

This situation exists because the number of units in each size and style varies and the time of delivery is variable.

Coordination between knitting, finishing, and sewing is essential to a continuous flow, with no bottlenecks. Coordination becomes more of a problem when a variety of styles and sizes are being knitted at one time for a particular order. The main objective, of course, is to get the entire order shipped on time.

Griffin uses the form shown in the accompanying illustration in its production planning. This form shows at a glance how many machines of each cylinder size are needed to fill the order.

Grouped Head Sizes Simplify Assignments

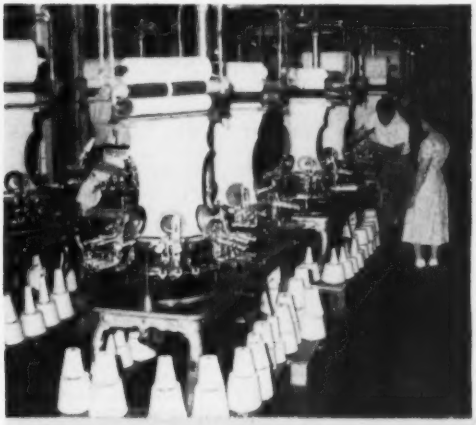
After the production schedule is set up, next comes machine assignment. Griffin tries to give each knitter an opportunity to produce an equal poundage each day.

If machines of the same head size are grouped, workloads can easily be assigned.

If machines are not grouped, it pays to take time to figure the production of each machine so the knitter will have an equitable workload.

For example, one knitter can handle eleven 8-feed machines operating at 60 rpm. These machines will produce about 700 lb. of fabric in an 8-hr. shift. The knitter will creel about 88 cones a day and will doff about 16 times during the week.

(Continued on page 286)



HEAD SIZE AND NUMBER OF FEEDS determine machine assignment. Some knitters prefer a variety of head sizes, while others work best with a group of similar machines.

Style No. 253 BLSA Cutter Order Date

Cylinder Inches Clo. Size	13"	14"	15"	15"	16"	17"		
Size	24	26	28	30	32	34		
Order No. No. Doz.	20	30	40	40	30	20	Total 180	doz.
Cloth rolls	3	4	12		5	4		

PRODUCTION PLANNING is expedited by use of this form, which shows at a glance how many machines of each cylinder size are needed to fill the order.

Annual KNITTING Section

Tricot-Dyeing Methods Affect FABRIC STRENGTH

▶ **It's long been suspected that dyeing methods affected strength, yield, and shrinkage of tricot fabrics. But until this study was made by TRD, no one knew just how much and in what direction. Here's some light on the subject and on a possible new method of dyeing as well.**

By LESLIE L. WALMSLEY

Dyeing & Finishing Div., Textile Research Dept., American Viscose Corp.

RECENT EXPERIMENTS on dyeing of acetate-tricot fabrics of different constructions at Textile Research Dept., American Viscose Corp., have explored the effect of dyeing on strength, yield, and shrinkage of these fabrics. While it has been known for some time that the fabric construction affected these properties, the exact effect has never been pin-pointed.

Tests on different constructions and with different dyeing methods have shown variations in strength with the same yield and with the same general shrinkage characteristics. All tests were made on dyed material, for it was felt that to some degree, perhaps wholly, the necessary differences in dye procedure were responsible for this variation.

Tests were made on the same cloth construction using different dyeing conditions as increased temperatures, variations in time of dyeing, and variation in pH or alkalinity. These weakest fabrics were those where the temperature was highest, the pH was the highest, and the time the longest. The indications were that pH and temperature were the main factors in determining the strength of a fabric. Time of dyeing was of secondary importance. It is not easy, therefore, to pin-point the responsibility for loss of strength in acetate tricot as in all fabric finishing plants there could be the variations outlined above.

A group of test pieces all of the same construction were dyed at one time under the same dyeing condition in the rope form. The temperature was 180° F., the pH 9, and the dyeing time 2½ hr. These fabrics were then tested to determine if there was variation within one batch.

Tests showed that there were serious variations not only from piece to piece but within each piece. By a further series of tests, it was proved that the tension exerted by the dyeing reel at high temperatures caused a weakening of the fabric at the point of tension because these fabrics were in the rope form and the tension would vary from one point to another. Although the fabrics were weakened, it was also established that certain constructions would generally give better strengths than others.

As a result of this work, it was decided to run trials to determine the variations in strength resulting from construction variables and variations due to dyeing conditions. For the purpose of this test, fabrics of six different constructions were knitted as follows:

1. Control—8½in. quality. Runners 63¼ to 50⅞. Ratio 5:4. From

▶ **TRD permits the publishing of this brief description of their continuous presetting and dyeing method with the understanding that the process is being patented, and that potential users will contact TRD for further information on procedure and licensing.**

COMMERCIAL PROCEDURE

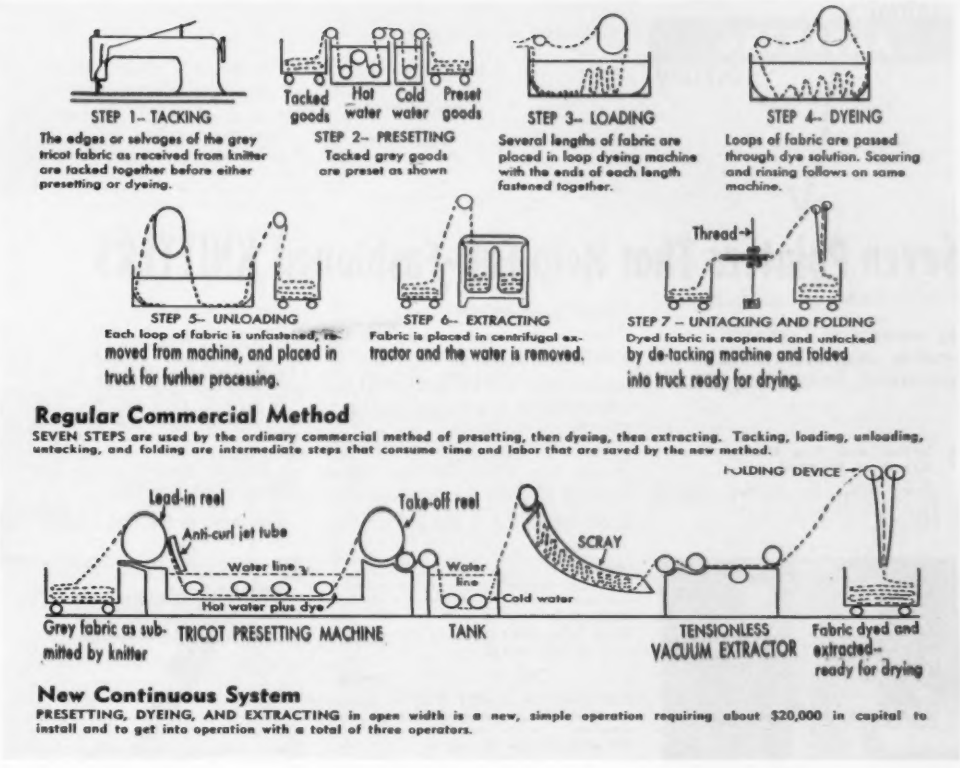
Operations	Tacking	Presetting	Loading	Dyeing	Unloading	Extracting	Untacking and opening	Total	Remarks
Capital Required	$1,000(3)	$3,000		$12,000(4)		$5,000	$1,000	$60,000	Lower strength Uneven courses & wales Lower yield Higher shrinkage Creases & crows-feet (possibility) Higher costs
Workers necessary	3	2		3		1	2	11	

CONTINUOUS PROCEDURE*

Operations	Presetting, dyeing, and extracting		Remarks
Capital required	$20,000	$20,000	Maximum Strength Higher yield Lower shrinkage Even courses & wales No creases or crows-feet Lower cost
Workers necessary	3	3	

* Patents pending

THIS VISUAL COST BREAKDOWN of the operations included in the two methods shows how the new continuous process saves two-thirds the initial capital investment and almost three-quarters the daily cost of labor.


STEP 1– TACKING
The edges or selvages of the grey tricot fabric as received from knitter are tacked together before either presetting or dyeing.
Tacked goods
Hot water
Cold water
Preset goods
STEP 2– PRESETTING
Tacked grey goods are preset as shown
STEP 3– LOADING
Several lengths of fabric are placed in loop dyeing machine with the ends of each length fastened together.
STEP 4– DYEING
Loops of fabric are passed through dye solution. Scouring and rinsing follows on same machine.
STEP 5– UNLOADING
Each loop of fabric is unfastened, removed from machine, and placed in truck for further processing.
STEP 6– EXTRACTING
Fabric is placed in centrifugal extractor and the water is removed.
Thread
STEP 7 – UNTACKING AND FOLDING
Dyed fabric is reopened and untacked by de-tacking machine and folded into truck ready for drying.
Regular Commercial Method
SEVEN STEPS are used by the ordinary commercial method of presetting, then dyeing, then extracting. Tacking, loading, unloading, untacking, and folding are intermediate steps that consume time and labor that are saved by the new method.
FOLDING DEVICE
Lead-in reel
Anti-curl jet tube
Water line
Hot water plus dye
Take-off reel
Water line
Cold water
SCRAY
Grey fabric as submitted by knitter
TRICOT PRESETTING MACHINE
TANK
TENSIONLESS VACUUM EXTRACTOR
Fabric dyed and extracted– ready for drying
New Continuous System
PRESETTING, DYEING, AND EXTRACTING in open width is a new, simple operation requiring about $20,000 in capital to install and to get into operation with a total of three operators.

previous tests, this appeared to be a balanced construction.

2. 8¼-in. quality. Runners 66¾ to 47¼. Ratio 7:5. Also, from previous tests, this appeared to be an unbalanced construction and should result in a weaker fabric than No 1. Little, if any, improvement in yield could be expected when dyed under exactly the same conditions as to time, temperature, and tension, and the fabric should be somewhat weaker than No. 1 when dyed in rope form.

3. 8¾-in. quality. Runners 63¾ to 51. Ratio 5:4.

4. 9¼-in. quality. Runners 67¼ to 54. Ratio 5:4.

5. 9¼-in. quality. Runners 69¼ to 52. Ratio 4:3.

6. 10¼-in. quality. Runners 69 to 51¾. Ratio 4:3.

The last four represent constructions in current use in the trade. There were two fabrics knitted on each construction. One set of fabrics was dyed by a continuous method developed by American Viscose Corp.

New Continuous Process

The machine used in this process operates somewhat on the principle of the presetting machine; that is, the fabric is entered into the machine at open width and the edges are prevented from curling by means of jets directed against the sides of the cloth as it enters the dyebath. As the cloth passes through the dyebath, it is dyed in an open-width condition and emerges from the dyebath into a finished rinse bath. After the fabric is dyed and rinsed, the cloth should be continuously vacuum extracted. This last process has not been developed by A. V. C., but it is felt that it would be a process that would present no major problems.

This machine, when fully developed, will cost a great deal less than current dyeing equipment and will save more than one-half the labor cost. In addition to the saving in processing costs, there will be an improvement on the quality of the merchandise.

The tension used was such that the control piece should give satisfactory shrinkage results. The remainder of the fabrics were run at this tension so that comparable figures could be obtained even though it was known that the shrinkage on the other pieces would not be satisfactory. It should be explained that in order to obtain satisfactory shrinkage figures, in production by this method, the tension should be adjusted based on experience and that when this is done, satisfactory figures can be obtained.

The second set of fabrics was dyed on a regular commercial basis in the rope form, taking care that all of the factors in the dyeing allow for maximum strength of the fabric.

This latter procedure was as follows: The fabric was loaded in the dyeing machine into cold water at 70° F. without previously presetting. The scouring bath consisted of 2% of Igepon T Gel and 1 qt. of ammonia for 100 lb. of material. These ingredients were added together with the dye and run cold over a period of 30 min., the dye being added gradually. The temperature was then raised to 160° F. in 40 min., run 20 min. at 160° F. and rinsed, at which time the finish was added, consisting of 1 lb. of a cationic softener, run at 100° F. for 15 min. The goods were than ex-

(Continued on page 288)

Annual **KNITTING** *Section*

Seven Pointers That Help Full-Fashioned KNITTERS

By HENRY B. LeFEAUX
Consulting Editor, TEXTILE WORLD
Superintendent, Vanette Hosiery Mills

1 What Are You Doing About Crooked Heads?

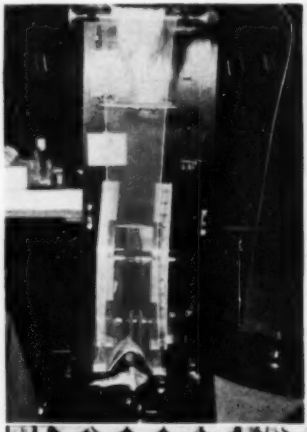
Here's what we do for crooked heads.

We've got a special form that the seamer fills out and gives to the seaming foreman. The foreman checks the form and gives it to the girl who operates the stretch tester.

Let's follow the example illustrated in the accompanying form. The seamer, Mrs. Little, said that Head No. 2 on Machine No. 20 was crooked in the leg. The girl who operates the stretch tester goes to Machine No. 20 and gets a dozen stockings. She tests only stockings from Head No. 2.

If the tests show that the stretch is the same on both sides of the stockings from No. 2 head—right after those stockings were knitted—the testing machine operator knows that the fault occurred in seaming.

The tester in this case revealed that

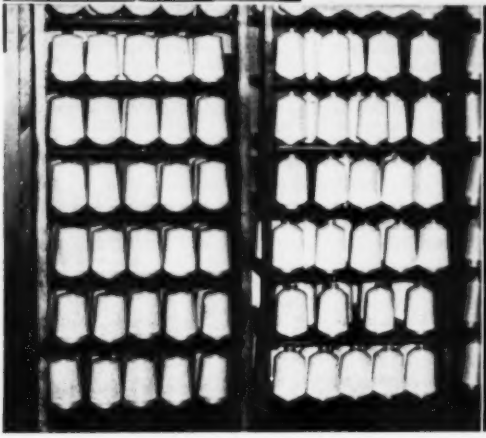


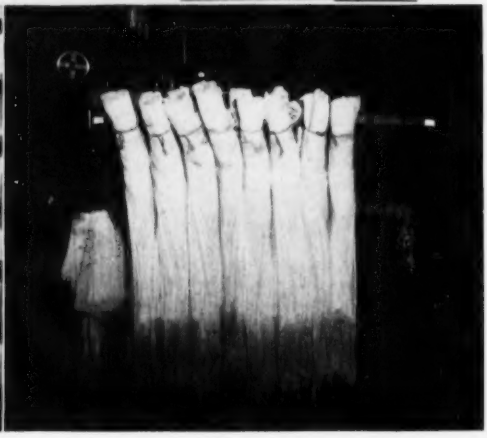
STRETCH TESTER is used to determine if any uneven selvages were caused by crooked heads or by seaming. If both sides are within ¼ in., don't make any adjustment.

FUSE ENDS ON A HOT WIRE to prevent ravelling. This operation is done right after presetting. Seamer production is up since this additional job was put in.

YARN RACKS SHOULD BE HANDY to the knitting machines and sturdy enough to protect the yarn. Old yarn should be used up first.

RACKS ON KNITTERS' CABINETS hold 1-doz. lots within easy reach of the pick-up girl, who puts the stockings on her truck and pushes the truck to the presetting cabinet.





the right side of the stocking was ⅜ in. longer than the left. The operator noted this condition on the form and turned it over to the fixer. The fixer adjusted the faulty head. After adjustment, another stocking from the same head was tested to make sure that the trouble had been remedied.

It doesn't pay to mess around with the heads just because seamers report them out of line. Make a stretch test, and you'll save lots of headaches. If the stretch tester shows both sides of the stocking within ¼ in. of each other, don't attempt an adjustment. That's close enough.

With today's heel panels starting as narrow as they do, a tighter splicing cone or a crooked head makes defects that are all the more noticeable. That's where the stretch tester can help a lot. And you'll find that relations between knitters and seamers will be better when you have a machine to do the judging. The tester we use was purchased from Karl Liebernecht, Inc., Reading, Pa.

Record of Work Returned to Knitting Room for Checking

Date given to foreman	2-20-52
Seamer's name	MRS. LITTLE
Machine No.	20
Head No.	2
Description of complaint	RIGHT SIDE LONG
Date given to Knitting Dept.	2-21-52
Did stretch machine show heads crooked?	YES
Was adjustment made on heads?	YES
Was head off in leg?	7/8 IN.
Was head off in foot?	1/2 IN.
Date adjusted	2-22-52
Other comments	
	Brickey.
	Fixer's signature

SEAMER makes out first part of this form and gives it to the foreman. He puts testing-machine operator to work on it, the fixer takes corrective action if necessary, and the foreman keeps the record.

2 Are You Fusing Ends?

Since loopless-toe knitting has come into prominence, it is more important than ever that all ends be kept short. A long string will hang in the seamer guide and cause a hole. You can do a perfect job on loopless-toe ends and eliminate ravel-outs by setting up a small job after presetting.

We fuse loose ends together with a hot wire right after the stockings come out of the presetting box. Benefits of this system include elimination of toe raveling, a reduction in waste, improved seaming, and increased seamer production.

3 Where Are Your Control Panels?

If possible, keep the electronic control panels out of the knitting room. If you're planning a new building or a change in layout, be sure to provide a special room for the controls. Air conditioning costs enough as it is without paying to refrigerate the hot air that surrounds these controls.

4 How Often Do You Clean Troughs?

We clean troughs once a year instead of every 3 or 6 mo. We leave all water jugs off the machines and let the knitter fill the boxes with a bucket. This procedure keeps fresh water in each box and also cuts press-offs in half.

Incidentally, we eliminated a lot of catch-bar trouble by oiling the sinker head every day with a good 25- to 30-weight oil. We apply the oil directly to the sinker head.

5 Is Your Inventory Control Strict?

You've got to account for every ounce of yarn to make a profit these days. Good layout of your yarn inventory can make the accounting easy.

All deniers of yarn should be kept as close to the knitters as possible. One man should keep all yarn racks full for the knitters.

When bad cones are taken off, they should be placed on the knitter's cabinet. The yarn man should examine the cone and send it back to the throwster. If you're using 10-, 20-, or 40-turn yarn, it pays to have bad pirns also sent back to the throwster for coning.

Yarn racks should be near the knitting machines and should be operated so that the oldest yarn is used first.

If you have any idle machinery, take off the yarn and run it on other equipment if the machines are to be stopped for a long time. We found that nylon loses some of its strength if exposed to the light for too long on idle machines.

6 How Are Your Working Conditions?

Good housekeeping pays off in better quality and lower unit costs. Visitors, too, always remember your product by the appearance your plant makes. And many of the improvements you can make are not just "dressing up."

All our aisles are laid out with lane-marking tape. We found that tape outwears painted lanes three-to-one and can be put down quickly. We use the 4-in. width—black for lanes, red for danger areas such as switch panels.

Lights should be hung at the proper level and should provide the desired candle power at the working level. Even with the best lighting, however, you'll find that your knitters can increase production if they have a small magnifying glass or other magnifying device. Narrowing fingers and picot bars can be checked more easily if magnified. The lace-finger shaft on the new machines cuts down visibility and makes magnification a "must."

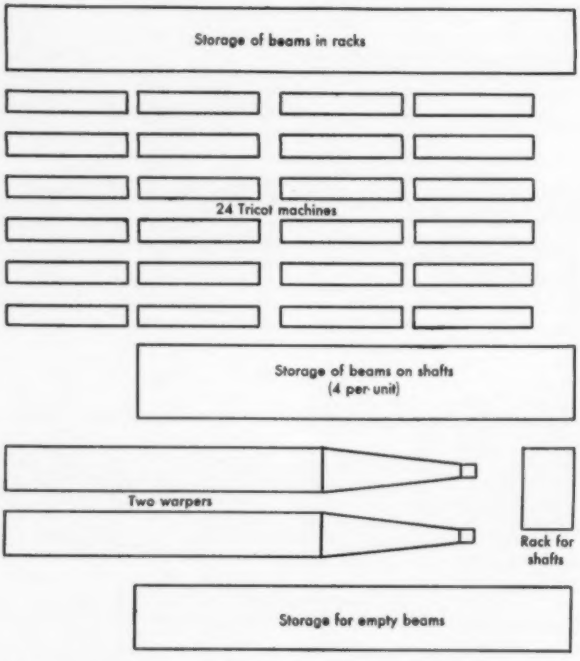
Complete air conditioning is essential in rooms where fine-gauge machines operate. This improvement also

(Continued on page 286)

Annual KNITTING Section

Improved Methods and Layouts— A Checklist for TRICOT KNITTERS

By RICHARD F. ESHLEMAN
Superintendent
Hess, Goldsmith of California, Inc.



END-TO-END LAYOUT saves steps for the patrol hand. There's no space between ends of two machines in each group. Overhead-rail system handles beams and warps. Storage space at top is for both full and empty beams. Empty beams are also stored near the warper, and beam shafts are kept at the head of the warpers. Full beams, handled on the shafts in groups of four, are stored near the tricot machines.

WARPING

Use Equal-Yardage Beams

Take a tip from the yarn producer, who ships equal-yardage beams. If your beams have equal yardage, yarn waste will be kept to a minimum. The number of times a machine is threaded per month will also be reduced because the back bar will require less threading.

The pointing operation should be done after the bar has been threaded and the ends have been picked up from the guides and placed in the point bar. It is difficult to start a threader on threading either the front or back bar at any given time; but with a little training your operators can do it, even when sley points are used. Sley points are very important in the knitting of some types of yarn.

Control Tension Accurately

In warping, it is important to keep tension uniform and as low as possible. Tension varies with the sizing material used. For instance, a 40-den. yarn from one throwster will require more tension than a 40-den. yarn from another throwster. This condition can be traced back to the types of size and lubricant used on the yarn. You should use a material that will give good yarn-to-yarn lubricity (for uniform loops) and good yarn-to-metal

lubricity (to minimize wear on the knitting elements).

Take Particular Pains With Beams

Beams should be kept polished and free from rough spots and dirt. Handling beams as a unit reduces the touching of the flanges with the hands. Before you put any yarn on the beams, a small amount of wax should be rubbed on the flanges so that they will be kept clean and smooth. A special machine should be built to keep the beams in condition. All you need is a simple stand with a motor-driven spindle capable of handling 14-in. and 21-in. beams.

KNITTING

Check Machine Speed

A complete study of each machine should be made to determine the proper machine speed. Keep a complete record of the number of defects and the poundage produced at a speed slightly below the point that the machine seems to labor. After this study is made, reduce the machine speed 2 to 4% more and make another study. If the results are the same, this speed is the correct operating speed of the machine.

Don't Over-Lubricate

Since 21-in.-diameter beams became available, less time has been spent on lubrication. As a result, over-lubrication often occurs. Over-lubrication is caused by the operator trying to put enough grease at each operating point to last the full run of the beams. It is impossible to do that. The machine must be oiled at least once a week; and, considering the amount of grease used and the time required to lubricate by manual methods, the new systems of automatic oiling should be considered.

Doff Cloth With Machine Running

You should study the possibilities of doffing the cloth while the machine is running. It takes only a minute and a half to remove a piece of cloth from the cloth roll. This time does not seem very great; but if you multiply this figure by the number of rolls doffed in a year, the saving amounts to a couple of extra pieces of cloth from each machine.

Add a Dyehouse Before Throwing Equipment

◀ During the last few years several tricot manufacturers have installed their own throwing equipment. To make throwing economical, the mill should have at least 50 tricot machines and a dyehouse. It is true that dyeing has nothing to do with the throwing of the yarn, but it is more important to have a dyehouse than a throwing plant. A modern throwing plant should be air conditioned and should have the equipment to produce large headless packages.

Know How Much Yarn Goes Into the Fabric

The greatest development in tricot knitting in the last year was the automatic let-off and take-up. Manufacturers that produce a quality fabric of a given construction must have a constant check on the amount of yarn that is knitted into the fabric.

It is true that a uniform fabric can be maintained by checking the runners at the beginning and end of a piece, but this extra work and frequent adjustment is not necessary with the automatic attachments.

Here's a simple method of checking the amount of yarn knitted into a given fabric.

Use two yardage-measuring devices mounted as far apart as the distance from the top beam to the bottom beam on the frame. If you hold the wheels of these units against the beams for a given time, each counter will give the amount of yarn used from each rack. Then you can figure the ratio. Shade marks can be eliminated if you follow the above procedure.

We believe that machinery manufacturers will soon offer these attachments for machines that are already installed, because it is impossible for the tricot manufacturer to replace his machinery every time a new attachment is developed.

Knitting Operator Can Inspect

Grading the cloth in the gray can be done by the knitting operator. The operator should correct all knitting damages, write this information on the piece ticket, and grade the fabric at the end of the piece. This method requires special training of each operator, but it's worth it. If the piece of cloth is not graded correctly, the mistake is readily picked up at the final inspection.

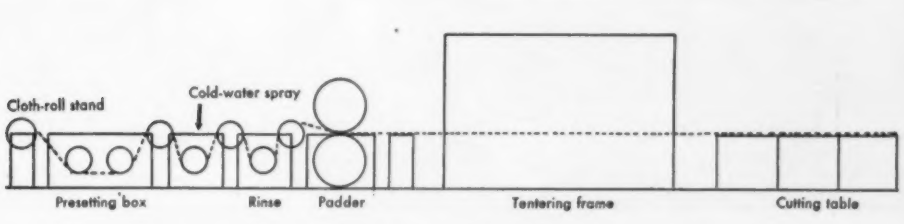
All gray-goods mills should keep a record of the condition of every piece of cloth sent to the dyer. If you have your own dyehouse, cloth inspection can be done after dyeing and will show both dyeing and knitting imperfections.

FINISHING

The simplest way to handle white rayon-tricot fabrics is illustrated in the accompanying sketch.

The cloth follows through the presetting operation to the cold-water spray and a final rinse. The next operation is where the finish is applied to the fabric on a padder. The cloth is automatically pinned on the tentering frame and is immediately laid on a movable cutting table. When the lay is completed, another cutting table is rolled into place.

If the mill does not cut garments, the cloth can be placed on full-width rolls at the end of the tentering frame. A special unit can be designed for removing the roll of cloth without stopping the tenter. This same roll can be shipped to the customer for laying out full width.



UNDYED RAYON-TRICOT FABRIC can be continuously finished on a range like this. If you don't want to use the cutting table, the fabric can be rolled for shipment to the cutter.

Annual **KNITTING** *Section*

HOSIERY CONVEYOR Handles Up to 400 Doz. per Hr.

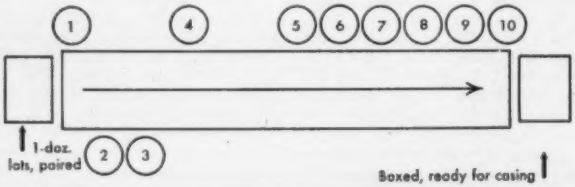
From transferring to ticketing, banding, and boxing, this conveyor is staffed with ten girls and is set up for maximum production with minimum effort.

By JAMES H. KENNEDY, Southern Editor, TEXTILE WORLD

THIS CONVEYOR was developed and built by a Southern knitting mill to open up a bottleneck in hosiery marking and packaging. The 10 girls who work at the conveyor have an average total production of 2,700 doz. stockings a day, although on some styles production has been as high as 3,200 doz. in an 8-hr. shift.

We think the story is best told by showing you just where each girl stands and what she does.

Where the girls stand



What Each Girl Does

1. Lays stockings on conveyor from put-up board. Socks are paired and sorted into 1-doz. lots before reaching the conveyor. This girl lays all the folded pairs of socks the same way on the conveyor—foot up, toe and top toward her. The girl picks up 1 doz. at a time and places the stockings side by side on the moving belt. The conveyor control (On-Off) is also operated by this girl. Conveyor speed is constant—45 ft. per min.

2. Using paper transfers from her left hand and a hot iron in her right hand, this girl stamps the fabric content on the foot of the top stocking in each pair.

3. Also equipped with a transfer dispenser and an iron, this girl stamps the size on the heel of the top stocking in each pair. When sizes change, the conveyor is stopped while this girl changes to a new roll of transfers.

4. Rider tickets are started by this girl. She folds back the toes of each

(*Continued on page 292*)

CONVEYOR IS BEST SUITED for lots of 450 doz. or more because otherwise, with each lot separated into six sizes, the transfer girl has to stop the conveyor too often to change rolls. Girls prefer to keep the same jobs all the time, even though the management lets them rotate if they wish.

Hosiery-Manufacturers' Conference Recommends Restraint and Cost Control

▶ Theme of the February two-day Waldorf-Astoria meeting of almost 500 hosiery manufacturers was summed up as—

"Know your costs—
"Don't sell without a profit—
"Don't make goods you can't sell—"
—by Samuel F. Rubin, chairman, National Assn. of Hosiery Mfrs.

IN SPITE OF THE NEED for concerted action by hosiery manufacturers under today's unsettled market conditions, nothing can be undertaken legally and accomplished except by means of individual action on the part of all hosiery producers, the Fifteenth Annual Hosiery Industry Conference decided recently in New York.

Robert O. Huffman, president of Drexel Knitting Mills and Huffman Full Fashioned Hosiery Co. and chairman of the Special Task Committee of the conference, summarized the report on manufacturers' possible courses of action when he said that (1) no restriction of competition was possible, (2) price slashes are no long-term panacea, (3) hosiery production should be based on consumption and sales, (4) a mill can go ahead on less than 100% operation and still make a profit, (5) a mill shouldn't be afraid to lose a customer if it can't make a profit on his order, and (6) no collective action is possible that can compensate for individual folly.

Figuring Costs

Elements that enter into both full-fashioned and seamless hosiery-manufacturing costs were discussed item by item and illustrated with slides by F. S. Fernstrom, cost accountant of Ernst & Ernst, Philadelphia, Pa.

Knowing the cost per dozen for each style of hosiery made by the individual mill is the only way a mill can successfully decide whether or not it should accept an order, and in the long run stay in business, it was pointed out. The three big cost factors are (1) materials, (2) labor, and (3) expenses.

"Materials" includes yarn, dyes, and boxes. "Yarns" include welt, leg, seaming, and reinforcement yarns. A percentage allowance should be made on yarn loss from waste, press-offs, etc. "Dyes" include dye-stuffs and chemicals of all types. "Boxes" includes the box itself, wrap, band, insert, tissue, and envelopes.

Labor Costs—Direct

The receiving of yarn and supplying of machines is sometimes considered as direct labor, but usually as indirect labor.

Other direct-labor elements a mill should keep costs records on are labor for (1) seaming and looping, (2) clipping and turning, (3) examining and mending, (4) pulling and separating of top, (5) preboarding and stock graying, (6) dyeing and boarding, (7) trimming and cuff turning, (8) pairing and clocking, (9) sorting, stamping, and folding, (10) boxing and banding, and (12) packing and, if possible, shipping.

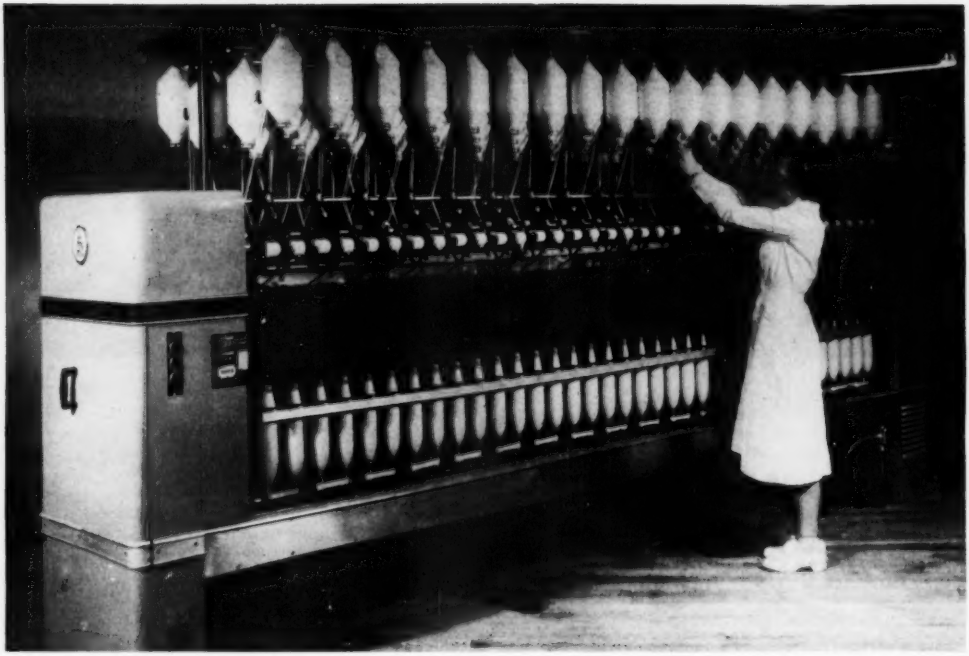
Labor Costs—Indirect

Salaries and wages of employees not working directly on the flow-of-production routine are included under indirect labor costs. These employees include foremen, machinists, maintenance crews, cleaning help, watchmen, elevator operators, inspectors, clerical help, and learners.

Expenses

All cost elements not attributable to material or labor costs can be grouped as "expenses." These include depreciation on the building and on equipment, price of needles and sinkers (charged out as used, not as purchased), repairs, utilities, supplies and expenses thereof, taxes (pro-rated monthly), insurance (pro-rated annually), and payroll fringe benefits.

Other "expense" items to include in working out the total cost per dozen of manufacturing individual styles are (1) office and administration, (2) selling, and (3) the cost of imperfects.



SMOOTH DESIGN, functional use of light metals, umbrella creel, and spinning of truly large packages are obvious external features of the Gwaltney frame.

☆ A TEXTILE EQUIPMENT NEWS FEATURE

SG-1—Textile Machinery

- Saco Lowell's SG-1 Gwaltney spinning frame with 11¼-in. traverse can produce 1-lb. package
- Anti-node rings control balloon and reduce tension and tension variation
- Design practically eliminates cleaning by spinner, makes possible increased machine assignments
- Antifriction bearings reduce lubrication frequency to once every 6 mo.

By **WILLIAM A. NEWELL,** Managing Editor, **RICHARD C. SCOTT,** New York Editor, and **E. H. HELLIWELL,** Contributing Editor, TEXTILE WORLD

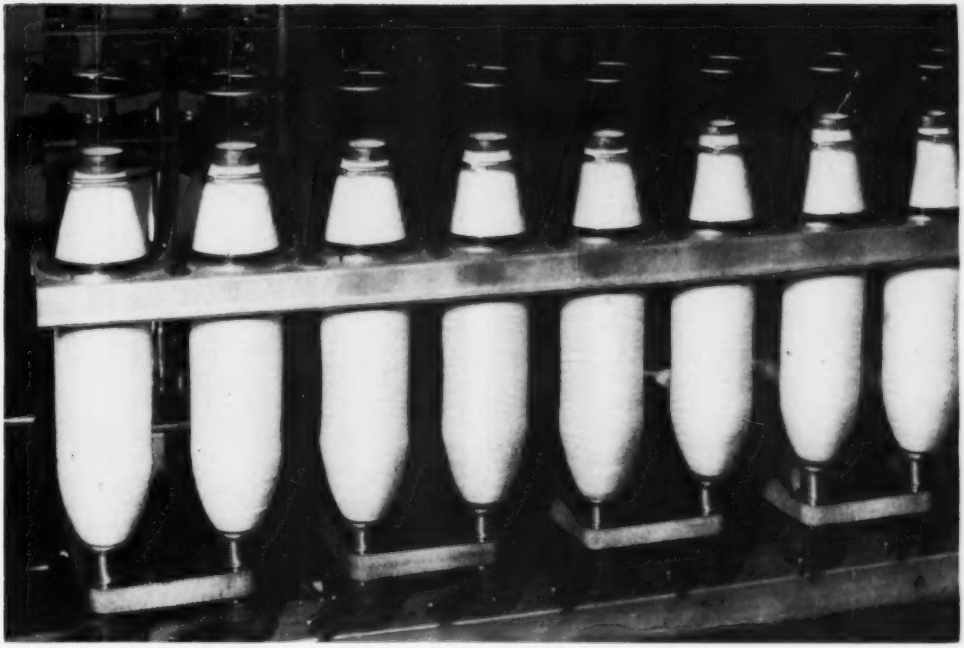
TEXTILE MACHINERY took a giant step forward this month with the formal announcement by Saco-Lowell Shops of the new Gwaltney spinning frame—the SG-1. The frame combines a notable advance in larger-package-spinning technique with a notable advance in machine design.

The frame can produce a yarn package holding up to 1 lb. of yarn. This larger package greatly lengthens the doffing cycle, reduces winding costs and knots, and increases the practicability of rewound filling. The frame is also said to produce yarn of better quality at a higher production rate, and stronger yarns with less twist. In spite of the larger package size, conventional spindle speeds can be run.

Rings Permit Large Package

One previous barrier to the production of larger packages was the size of the balloon—the larger the package, the greater the gauge to accommodate the balloon.

The SG-1 frame permits spinning of larger packages by controlling the balloon size through use of three anti-node rings between the front roll and the bobbin. The front rolls on this frame are 27½ in. above the ring rail at its bottom position. Yarns leaving the front rolls—the front nip is directly over the top of the bobbin—pass through a small diameter pigtail, a second ring nearly as large as the spinning ring, and a third ring slightly larger than the spinning ring. The bottom ring traverses with the spinning ring. The top and middle anti-node rings also move vertically,



ONE-POUND PACKAGES spun with an 11¼-in. ring traverse are possible through use of balloon-control rings. The two lower rings can be seen near the top of the bobbin.

Takes a Forward Step

although the distance is less than the traverse of the spinning ring. The relative positions of the rings and rail are shown for two positions of the rail in the accompanying drawing.

Yarn Tension Reduced

This method of yarn control is said to result in a decrease in the tension on the yarn as compared with conventional spinning. This tension is also evenly maintained within close limits throughout the building of the bobbin and at all positions of the ring rail. The minimum variation in yarn tension permits the use of the longer traverse and building of bobbins longer than heretofore possible on a cotton-type spinning frame. Traveler weights may be selected with greater accuracy to suit the yarn size because of the more uniform conditions of tension at all points in building the bobbin. With such a reduction in traveler tension and the decrease in tension variation, it now appears possible to run the traveler up to 50% faster and at the same time to extend its useful life substantially—possibly four or five times.

With the decreased and uniform tension of the traveler, larger ring sizes may be successfully used. The increase in ring size permits more yarn to be put on the bobbin and increases the doffing cycle. The doffing cycle on the SG-1 frame is about 1 hr. for each yarn count—that is, a 40s yarn will run about 40 hr. between doffs; a 30s yarn, 30 hr., etc.

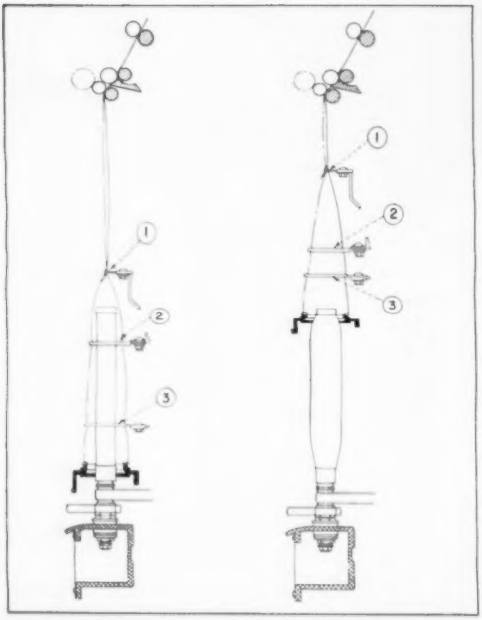
Easy To Doff and Piece Up

The anti-node rings present no problem in either doffing or piecing up. The rings are hinged, so that they can be turned upward; and the two bottom rings have a "broken" and overlapping periphery so that the end can be inserted in piecing up.

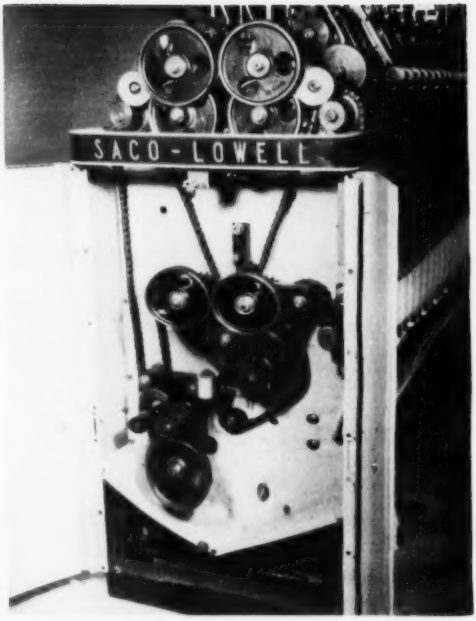
Because the large package might present a problem in stopping it to piece up, a spindle brake has been installed on each New Era spindle. In piecing up, the spinner stops the spindle with the brake, raises the bobbin, pulls off the end, threads it through the traveler, through two bottom anti-node rings, through the top pigtail ring, releases the brake, slips the end under the side of the front roll, and breaks it off. It was claimed by Saco-Lowell that a person could learn to piece up on the new frame in 5 min., and one of your editors who hasn't dabbed up an end for 5 yr. did so.

The Gwaltney frame offers a new versatility to mills, as all yarn counts, from 2s to 120s, can be commercially spun on the same frame. However, it seems likely that two ring sizes will be best for the entire range—a 3-in. ring for coarse and medium counts, and a 2¾- or 2¾-in. ring for medium through very fine counts.

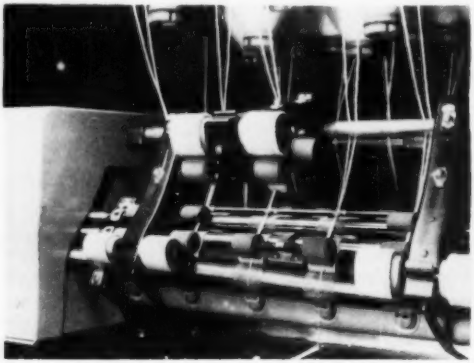
The company states that the limited experience of mills with the Gwaltney frame indicates that under average operating conditions there will be a significant reduction in the number of ends down per thousand spin-



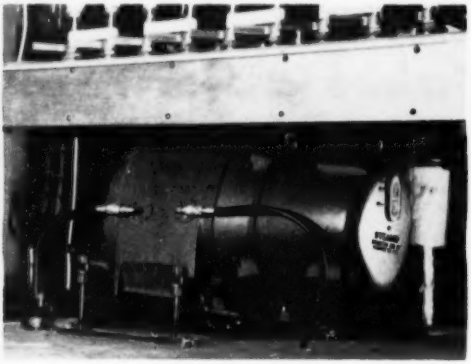
BALLOON IS CONTROLLED by anti-node rings (1, 2, and 3). Drawing shows how rings move in relation to spindle as bobbin is built, and how yarn travels vertically from front roll.



HEAD-END GEARING is arranged by function in three groups—top, draft gears; center, twist gears; bottom, lay gears. All gears have same bore and pitch.



DRAFTING ELEMENTS are modified Shaw type. Top rolls are mounted on permanently lubricated needle bearings and are spring weighted. Bottom rolls are mounted in antifriction bearings.



WATER-COOLED MOTOR is located under the frame for better use of floor space. Water cooling reduces the load on air-conditioning systems in spinning rooms.

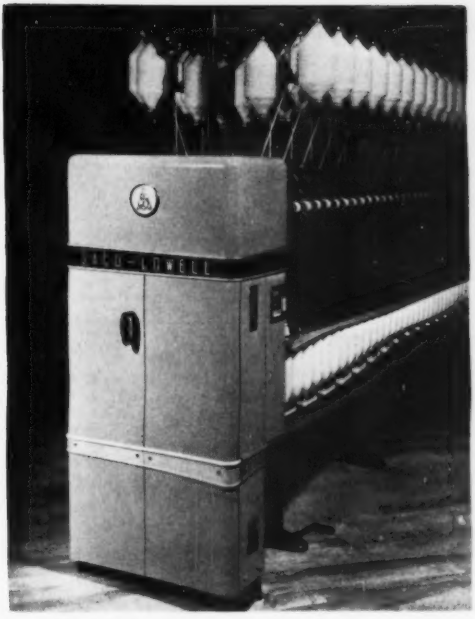
dle hours. The decrease in yarn tension and the absence of variation therein, together with the uniform twist distribution in the yarn, are factors in creating better operating conditions and higher efficiencies.

Yarn Quality Improved

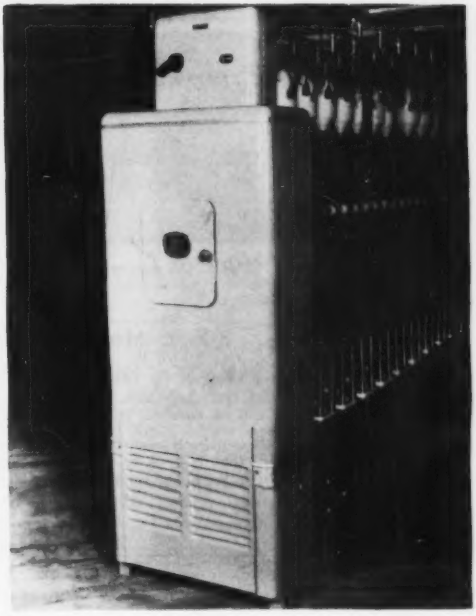
The Gwaltney frame is also said to spin yarn of improved quality and strength at lower cost. Filling yarns and knitting yarns with low twist necessary to achieve a soft and lofty hand may be produced on the Gwaltney frame without difficulty, the company states. More uniform twist distribution should result from the high angle of the roll stand, the greater distance from front roll to traveler, and the reduced and more uniform tension.

One SG-1 frame shown recently at Saco-Lowell's Biddeford Shops was operating under the following conditions:

Yarn No.	17.5
Roving	1.0
Draft	35.0
Ring	3 in.
Spindle rpm.	8,200
Front-roll rpm.	162
Traveler	No. 3
Traveler speed	6,600 fpm.
Length of traverse	11¼ in.
Production	0.058
T. M.	4.00
Twist	16.8



NARROW WIDTH of frame—27½ in.—shows in this view. Umbrella creel and absence of horizontal surfaces practically eliminate cleaning done by spinner.



PNEUMAFIL VACUUM SCAVENGER SYSTEM is standard equipment built into the Gwaltney frame. This system relieves spinner of much work, keeps waste open and lofty.

Although no installation of frames has been made that gives a true picture of expected machine assignments, limited experience in present installations indicate that a spinner may be able to run up to 30 sides. This higher machine assignment is said to be possible because of fewer ends down and greatly decreased cleaning required of the spinner.

Bobbins produced by the frame can be handled on all present winders except the Barber-Colman spooler. Barber-Colman is now developing a spooler to handle the 1-lb. bobbins produced by the SG-1 frame. This new spooler will operate on the same principle as the present spooler, but will wind a 5¼-lb. package instead of the present 2½-lb. package. The first of these new spoolers is being installed at York Div., Bates Mfg. Co., Biddeford, Me. Barber-Colman will be able to quote and accept orders on these new spoolers later this year.

Oil It Once Every Six Months

Even if it did not represent an advance in spinning technique, the Gwaltney frame would and does represent an advance in textile-machinery design and construction.

Most textile machines are still tied to an oil can. The SG-1 is not. It requires lubrication a minimum of only once every 6 mo. Some parts require lubrication only once every several years.

Every bearing on the SG-1 is of the antifriction type with sealed-in lubrication and pressure-type grease fittings. Top rolls are mounted on needle bearings that need lubrication only at long intervals. Spindles are New Era type with sealed-in and lubricated ball-bearings.

Freedom from daily oiling also, of course, means freedom from yarn damage caused by oil and reduced cleaning.

Equal to 3½-In. Gauge

Large rings usually mean fewer spindles per unit of floor space. To compensate for the floor space needed by the 4-in. gauge of the Gwaltney frame, the machine has been "compressed" so that it takes no more floor space than a conventional frame with a 3¼-in. gauge. The width has been reduced from the conventional 42 in. to 27½ in.

Ease of Cleaning Featured

Spinners clean the new frames only "occasionally." Daily blowing down and wiping are eliminated if overhead blowers are used. The frame was designed to be easily cleaned by air from overhead, and all possible obstructions to air currents and all possible horizontal surfaces on which lint can gather have been eliminated. Thus, the spinner has more time for "spinning."

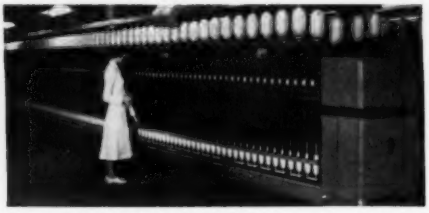
One means of eliminating air-current obstructions is the use of an umbrella-type creel. This creel, besides easier to keep clean, takes 12x6 roving bobbins, and suspends these bobbins on ball bearings to reduce stretched roving.

A Pneumafil vacuum scavenger system is built into the frame as standard equipment.

All Gears Interchangeable

The head end and head-end gearing are different from that of any conventional frame. Although the frame is narrow, the gearing has been compactly placed so that there is adequate space for adjustments. All change and constant gears in the head end and in the driving gearing are of the same bore and have teeth of the same pitch and width. This feature means that one set of gears can be used as change gears for draft, twist, and lay. The only difference between gears is the number of teeth. The interchangeability eliminates the necessity of carrying a large stock of gears and further eliminates the confusion and time lost where gear di-

THIRTY GWALTNEY FRAMES will eventually be installed at York Div., Bates Mfg. Co. Spinners are expected to be able to run at least 30 sides.



SPINNERS DO NO CLEANING at York Mills except for an occasional wiping underneath. Routine cleaning is taken care of by Parks-Cramer overhead cleaners and design of the frame.

First Major Installation at York Mills

The first major installation of the Gwaltney frame is being made at the York Div., Bates Mfg. Co., Biddeford, Me. Thirty frames will be installed; 16 frames of 240 spindles each are now in place.

The installation isn't sufficiently complete to determine workloads, but it is felt that 30 sides per spinner will not be unreasonable. At present, one spinner is teaching two learners on 20 sides. Spinners do no cleaning on these frames except for an occasional cleaning underneath the frame by hand. Preliminary tests show eight ends down per 1,000 spindles per hour.

Yarn counts run so far have been 52s, 16s, and 12.5s. The 52s yarn is doffed every 48 hr. On the 12.5s yarn, front-roll speed is 175 rpm. as compared to 126 rpm. on conventional frames. Ring diameter is 3 in. Weight of package produced is 14 oz.

The water-cooled G. E. motor runs about 10° warmer than room temperature.

mensions vary. As a further refinement, the gearing is designed so that quick changes in draft-gear constants may be made.

The draft gearing for both sides of the frame is enclosed in the upper part of the head end, and is driven by quiet chain drives. The upper portion of the head end that houses this gearing may be lifted up at either side of the frame for quick changes or may be removed entirely from the frame to expose all of the draft gearing. The doors of the head end are held shut by a magnetic lock that has no parts to get out of order, does not require maintenance, and that holds the doors tightly shut.

Drafting Elements — Spring Pressure and Needle-Bearing Rolls

The Gwaltney frame has a modified Shaw-type drafting system. The steel rolls, mounted in antifriction bearings, are carried on a die-cast roll stand pitched 60° and positioned to deliver the yarn directly over the center of the spindle. Spring-weighted Saco-Lowell-Torrington top rolls are permanently fastened to an arm to eliminate conventional cap bars. The range of staple that can be processed is $\frac{7}{8}$ in. to $2\frac{1}{4}$ in.

Since all of the bearings contained within the drafting element are self-lubricating, the entire assembly will not only require less cleaning but will be easier to clean since there is no oil to catch and hold lint and dust.

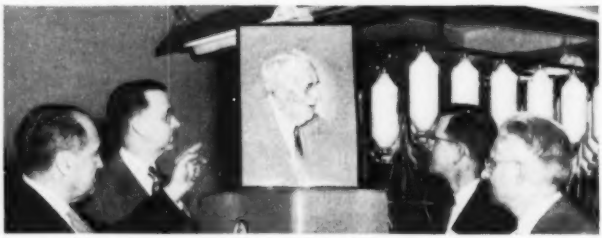
Rotary cleaners are mounted on an eccentric to provide a wiping action on the front rolls.

New Era Spindle Standard

The Saco-Lowell New Era spindle is standard equipment on the SG-1 frame. The New Era spindle will carry the heavier packages and long traverses of the Gwaltney frame without difficulty at standard spindle speeds, the company states. Because the heavier package cannot be stopped easily for piecing up, a standard part of the spindle on this frame is an internal cam-type brake. This brake has been in use for a number of years on New Era spindle twister installations.

A new tape-tension pulley and bracket have been developed and used on this frame. The pulley itself is mounted on antifriction bearings, while the bracket is constructed in such a manner that the tension on

(Continued on page 240)



GENE GWALTNEY—HIS FRAME

The completion of the development of the SG-1 frame is the culmination of the planning and work of Saco-Lowell's late vice president, Eugene C. Gwaltney. During his years in the mill, Gene had the dream of developing truly large-package spinning. He brought to Saco-Lowell Shops the mill experience, foresight, imagination, and enthusiasm so necessary for the development of any new idea.

For the past seven years, Gene devoted the greater part of his time to the development of a large-package frame. The monument to his work is the present SG-1 frame, named the Gwaltney frame in his honor. At the time of his death on Nov. 30, 1951, Gene had seen the frame developed as described in these pages, and the completion of the first 30 frames.

Let's be realistic in our approach to the employment problems of the physically handicapped.

The blunt truth is that few jobs in any shop, office, or factory require so-called physical perfection. The handicapped can be employed in most jobs.

Two nation-wide surveys of the work performance of the physically handicapped, in industries both light and heavy, assure us that the handicapped, when properly placed, generally make good. They are excellent producers. They are safe workers. They stay on the job.

Of significance to employers is the fact, borne out by the surveys, that the hiring of handicapped workers does not involve elaborate and expensive research study as a preliminary. Nor does it involve extensive reengineering of jobs.

Think these facts over. To fail to employ the physically handicapped in jobs for which they are qualified doesn't make sense. We cannot afford to waste our manpower. *U. S. Dept. of Labor*

HANDICAPPED PERSONS Pay Off For Production and Loyalty

By **RICHARD C. SCOTT,** New York Editor, TEXTILE WORLD

▶ Duplan Corp. has been employing the physically handicapped on a fairly large scale for several years now in all its plants.

▶ Production, maintenance, office, and supervisory positions lend themselves, without too much expense or difficulty, to employees with varying degrees of disabilities.

▶ Cost of program pays for itself over the long run with steady production and loyalty records and fine community good will.

PHYSICALLY HANDICAPPED PERSONS make capable and loyal employees who are well worth the small amount of time needed to adjust them into particular jobs in the mill, Duplan Corp. has decided. And consequently, according to the most recent count in its mills in Pennsylvania, North Carolina, Virginia, and Tennessee, the company has on its payroll a total of more than 175 handicapped persons.

No percentage figures are available, of course, on the loyalty and capability of such an artificial grouping of individual human beings as "physically handicapped persons" working on a variety of jobs requiring a variety of skills. Yet Duplan has proved to its satisfaction that in most cases so long as a person's mental capabilities are normal and he or she is anxious to work, there is some job in the mill he or she can perform as competently as the so-called perfect physical specimen. And usually the physically handicapped person has excellent stick-to-it-iveness on the job.

In making use of this most dependable source of labor for several years now, the company has found that the extra expense involved in training and adapting the physically handicapped newcomer is soon paid off productionwise.

Handicaps that have not proved to be handicaps to some employees in various jobs through the mill—

1. Production employees—
   - Bad knee
   - Back injury
   - Disfigurement of eye
   - Kidney condition (30%)
   - Lame leg
   - Malaria (10%)
   - Mute
   - Wounded in left arm and side (100%)
   - Harelip
   - Malaria
   - Spastic nerve condition
   - Stiff and missing fingers
2. Maintenance employees—
   - Arm injury
   - Bad eye condition
3. Office employees—
   - Dislocated hips
   - Fingers missing
   - Loss of one eye
   - Paralysis and missing finger
   - Short leg
   - Web hand
4. Supervisory employees—
   - Malaria (10%)
   - Short leg

Positions that have been filled successfully at Duplan by physically handicapped employees—

- Carpenter
- Clerk
- Designer
- End Counter
- Fixer
- Foreman
- Machinist Helper
- Piece Boy
- Quiller
- Roll Boy
- Shipper Helper
- Technician
- Tie-Up Girl
- Weaver

BULK & COVERAGE

2 x 2 TWILL SUITINGS:

	"ORLON"	WOOL
WEIGHT - OZ/SQ YD.	6.8	8.0
THICKNESS - MILS	21.8	21.0
BULK ADVANTAGE -	22%	
FABRIC YARDAGE (56") PER 1000 LB. YARN	1500 YD.	1280 YD.

18 OZ. SERGE:

	50% "ORLON" 50% WOOL	WOOL
WEIGHT - OZ/56" YD.	14.80	17.78
THICKNESS - MILS	23.5	24.5
BULK ADVANTAGE -	15%	
FABRIC YARDAGE PER 1000 LB. YARN	1080	900

FABRICS OF SIMILAR THICKNESS of 100% Orlon, Orlon blended with wool, and of 100% wool are compared in this chart. High bulk and coverage of Orlon gives lighter fabric weight and higher yield per pound of yarn.

DIMENSIONAL STABILITY LAUNDERING

Fabric No.1 100% "ORLON" ACRYLIC FIBER

Fabric No.2 100% WOOL

AREA SHRINKAGE
(AATCC RAYON #3 WASH)

55/45 "ORLON"/WOOL

+0.3% -1.9% -14.0%

ORLON'S DIMENSIONAL STABILITY is shown by this panel. All-Orlon fabric gained 0.3% after laundering while wool shrank 14%. Use of 55% Orlon in blend with wool held the shrinkage to 1.9%.

HERE'S WHAT TO EXPECT

Nylon—Orlon—Dacron: Where Do They All Fit?

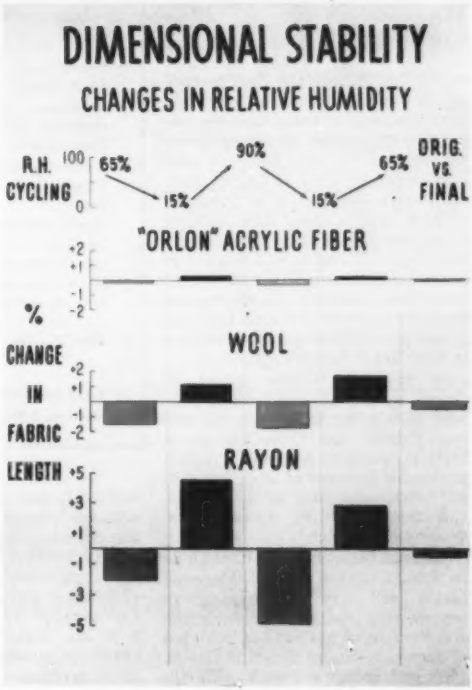
"I was told a few years ago that nylon was a wonder fiber that seemingly performed miracles. Then I'm told that Orlon is the fiber we should be working with now as aggressively as possible with a staple plant about to start shipments. Almost in the same breath, you tell me that a Dacron plant will come into being next year and that it too makes wonderful apparel. Are these new fibers all alike? Where does each fiber fit in?"

Such thoughts as these are so normal that they deserve a straightforward answer. The first part of that answer necessarily must be negative in its contribution to clarifying the picture. It is certainly true that these fibers will, and in fact do, overlap in their uses. On the other hand, they are not identical and each contributes certain outstanding points in addition to the good combination of properties held by all three. Thus, the educated consumer will buy one for a different reason from that considered in buying another.

Orlon acrylic staple has several properties in common with Dacron polyester staple and nylon. This combination of properties sets these three fibers aside from the natural fibers as being in a distinct class. In varying degrees, each of the three has good dimensional stability; low moisture sensitivity, quick-drying characteristics, good wrinkle recovery, press and shape retention, easy launderability, high durability, and resistance to all sorts of degrading influences. Now, in addition to these properties held more or less in common between the three fibers, Orlon acrylic staple is outstanding in these distinctive properties: high bulk and coverage; warm, desirable hand; easy wetting; resistance to pilling; ease of ironing; and resistance to cigarette ashes.

Of course, no one property ever sold a fiber, and it is quite apparent that it is this particular combination of properties that is causing the tremendous demand on the Du Pont pilot-plant facilities. That demand comes from those mills and converters who recognize the importance of being ready with new developments.

SOCKS OF ORLON and Orlon in 50-50 blend with wool showed no shrinkage after 2 hr. of laundering. Similar socks of 100% wool shrank about 11% in the same test, which showed that Orlon provided stability in blends with wool.



RELATIVE HUMIDITY was varied in this test as shown at top of the chart. The bar graph below shows the percent change in fabric length for Orlon, wool, and rayon. Orlon's change was less than 1% under all conditions.

FROM ORLON STAPLE

► Orlon staple goes into commercial production soon. You should know that:

- Properties of Orlon staple differ from those of filament.
- Orlon fabric has the same insulating value as wool but with less weight.
- Processing can be done on conventional machinery with little change in speeds and settings.
- Cognizance of greater bulk of Orlon staple is the key to successful processing.

By **Dr. D. F. HOLMES,** Manager, Sales Development Section, Textile Fibers Dept., E. I. du Pont de Nemours & Co.

ALTHOUGH CHEMICALLY SIMILAR, it is important to note that purposeful differences in production techniques result in a few differences in the properties of Orlon staple as compared to those of Orlon continuous-filament yarn. The filament yarn has higher tenacity, higher stretch resistance, and higher resistance to degradation by sunlight, while the staple has a more resilient handle and is more readily dyeable. The distinction once made, describing the filament yarn as "strictly an industrial fiber," is not true, however. A large number of apparel uses for continuous-filament Orlon yarn are now proving to be outstanding successes.

The specific physical and chemical properties of Orlon staple are shown in the accompanying table. These data are average for present pilot-plant production, and may of course change

Based on a paper delivered recently before the American Association of Textile Technologists.

somewhat as the development proceeds.

Insulating warmth of fabrics, for example, depends on many factors, of course; but limited test data pertaining to the transmission of heat indicate that fabrics of Orlon have approximately 20% greater insulating power per ounce of fiber than fabrics of wool have. Since the bulk of Orlon causes equal-weight fabrics to be about 20 to 30% thicker, these data probably should be interpreted to mean simply that there will be little difference in insulating value, provided each has the same fabric geometery. In other words, an Orlon fabric of the same thickness should give about the same insulation as wool but at lower weight.

In resilience, Orlon should be classed with wool and Dacron polyester fiber rather than rayon and cotton. Fabrics from Orlon are not as lively in springing out from a creased position as Dacron and wool, but they are nevertheless good in this respect, and the longer-time recovery from creasing is excellent.

The resistance of fabrics from Orlon to abrasive surfaces is good. The exact figures will vary tremendously, of course, with the fabric construction and the type of test method used; but in general it can be classed in this respect with cotton and wool—although Orlon is not in the nylon category.

Orlon is essentially free from the problem of surface pilling and has decreased the tendency of wool to pill when used in blends with that fiber. It is important to recognize that this relative freedom from pilling enables the weaver and knitter to take full advantage of the high bulk of Orlon in loose-knit construction—such as socks and sweaters, winter suits, and outercoats.

Thorough testing by Underwriters' Laboratories have shown that the fire hazards of fabrics made from Orlon are in a class above those presented by cotton, acetate, and rayon fabrics of similar weight and weave. The ignition temperature is close to that of wool, and appreciably above that of cotton. There is no hole-melting problem with fabrics from Orlon acrylic staple; equivalent to wool in resistance to cigarette ashes.

Orlon Staple Easy To Process

Orlon staple has proved to be highly adaptable to conventional textile processing. Our over-all experience with this product has been one of ready processability on all systems, with little or no change in settings and speeds used for other fibers. Mills have been successful with the older, orthodox machines used in the cotton, woolen, and worsted systems of spinning, as well as with the newer developments. A few specific comments may be generally helpful, however.

Best performance has generally been obtained at atmospheric conditions of approximately 75 to 85° F. and 55 to 65% r.h. Some mills have operated satisfactorily outside this range, but static may be encountered at lower humidities and card loading at appreciably higher humidities. Blends with other fibers have indicated no problems, except that one must adjust for the inherent bulkiness of Orlon staple in proportion to its content in the blend. To take account of the extra bulk, for example, best performance is obtained if picker laps, card slivers, and drawing slivers are run somewhat lighter than usual. Likewise, in setting up yarn counts and fabric constructions, an allowance of very roughly 25% can usually be made for bulk. In attempting to duplicate a desirable fabric construction, it is most desirable to adjust for bulk by spinning a finer yarn count in order to have the same yarn diameter.

Orlon acrylic staple, as shipped, contains an antistatic and lubricating finish that is normally adequate for processing. If difficulty should be encountered, and always when a mill is stock- or top-dyeing prior to processing, an antistatic spray of a formulation such as 1% Avitex R can be applied to the stock, lap, or sliver.

Blending of Orlon staple is desirable, but overworking by extreme opening or beating is unnecessary and, in fact, undesirable because of crimp removal. Carding presents no particular problem, regardless of the type of card used, provided it is remembered that the high bulk of Orlon will require somewhat lighter picker laps, slivers, etc., and perhaps larger trumpet sizes. Cognizance of bulk is also the clue to entirely satisfactory processing in the rest of the operations, regardless of the spinning system used.

Warps Need Not Be Sized

Much of the fabric being made from Orlon acrylic staple is woven unslashed from plied warp yarns.

(Continued on page 274)

Properties of Orlon Staple

Tensile Strength	2.0 g.p.d
Elongation	35%
Regain	1.2% at 75° F., 60% r.h.
Specific gravity	1.14
Cross-section shape	"Dog-bone"
Color	Off-white
Luster	Semi-dull (at present)
Sticking temperature	536° F.
Shrinkage	2% in boiling water
Effect of solvents	Unaffected by common solvents
Effect of heat aging	No loss after 72 hr. at 300° F.
Effect of alkalis	Degraded by strong, hot alkalis; but adequately resistant for normal textile operations
Effect of acids	Outstanding resistance, retains 90 to 95% of strength after 8 hr. in 37% HCl or 58% H_2SO_4 at 122° F.
Effect of mildew	Completely resistant
Effect of moths	Completely resistant

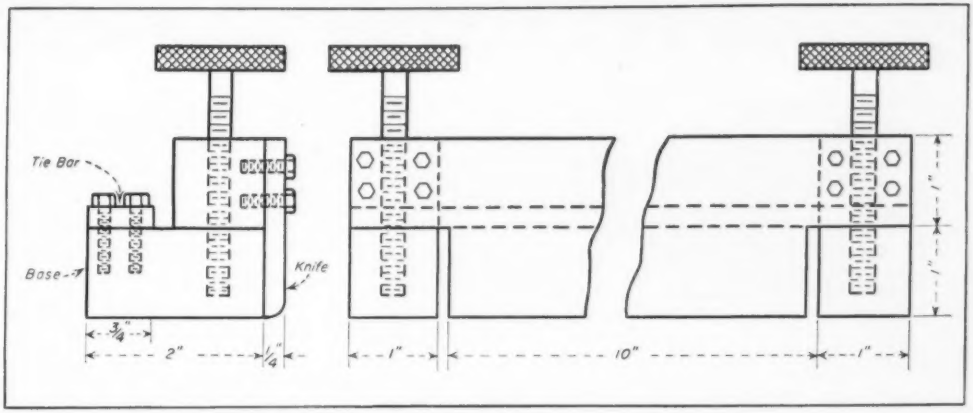
Why You Should Be Thinking About Orlon Staple

You'll be seeing more Orlon staple—and soon!

Most Orlon acrylic fiber that you may have seen has been in continuous-filament form. Orlon staple, up to now, has been produced in pilot-plant quantities and furnished for development purposes only.

However, a full-scale staple-production plant is now near completion, and Orlon staple will begin to reach mills in large quantities in a month or two. When up to full capacity, this plant will be producing 30,000,000 lb. of staple and tow per year. This fiber, Type 41, is being made in 3-den., 1½- to 4½-in. types, semi-dull luster.

You'll be seeing more Orlon staple soon. That's why you should be reading about it now.



CASTING KNIFE for making films to be tested is easily made. Adjusting thumb screws permit casting of films of various thicknesses.

Laboratory CONTROL TESTS Important to Good Fabric Coating

- Specific-gravity-test interpretation important to coated-fabric sales.
- Summary of basic tests can help evaluate various compounds.
- Base fabric as well as coating compound should be checked.

By **THOMAS J. KERR,** Coated-Fabrics Consultant

THE ESTABLISHMENT of specifications and control-test methods for coating compounds and coated fabrics should be approached with definite care and thought. Tests must be adequate to insure sufficiently uniform quality and satisfactory performance, but at the same time, must be limited to only those that are necessary for these purposes. There is apt to be a tendency on the part of the technician to establish some requirements for quality that are more stringent than required for proper insurance, or others that have no particular bearing on the end use of the product. Resultant specifications tend to increase the cost of the compound and will certainly increase overhead unduly by unnecessary consumption of time required for testing.

There should be no need for justification of specifications and laboratory control tests, for they are simple insurance. To the occasional mill executive who feels that since such testing is non-productive it is not justified, it is suggested that he consider it from the same point of view as his fire insurance. It too is a non-productive expense. As long as there are possibilities of human error, there are possibilities of mistakes in compounding or coating and the resulting damage. The loss of business and prestige that might result from such mistakes, together with claims that are possible if mistakes are not caught until after fabrication of the coated fabric, might be just as catastrophic as a fire.

The stock answer to the above is, of course, that by buying raw materials from reputable manufacturers no trouble has ever been experienced from this source, and they no doubt have control tests on their products. This is not questioned, and the refutation is just as stereotyped, that many concerns have carried fire insurance for many years and never had a fire. It is repeated that, as long as there are possibilities of human error, specifications and control tests are a necessary insurance. No reputable manufacturer will object to supplying materials with minimum requirements established for quality.

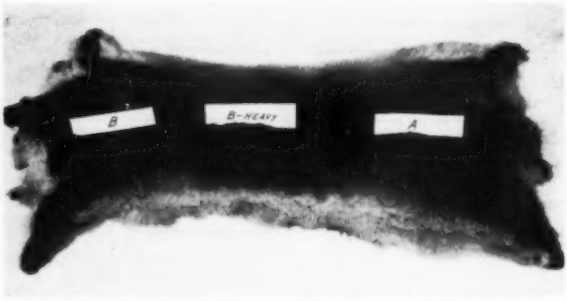
It is generally desirable to make as many tests as possible in the initial evaluation. The more knowledge a chemist has of the characteristics of the various compounds and the coatings they produce, the better equipped he will be to select the one best suited for the present requirements. This information is also valuable in making selections of compounds for other uses. Then, when a compound is selected for production, only such controls as are necessary to serve as criteria for insurance of satisfactory quality should be chosen for routine testing.

Many of the tests on the compound must be made on the dry, fused material. The first step, therefore, is to prepare films of the material. These should be about 0.025 in. Great care should be exercised to maintain the uniformity of thickness throughout the sheet. These films may be either cast on plate glass or on a specially prepared paper. The paper used is one prepared by coating with a non-compatible resin and super-calendering.

A special knife is used for casting these films. Two planed and polished supporting blocks are prepared and the knife is attached to these with

(Continued on page 256)

What's What in Furs



NEW ZEALAND O'POSSUM pelts contain three grades of shuttle fur. The V section of the butt is *A* fur, the center section near the backbone is *B*-heavy, and the shoulders and sides are *B*.

THE PELT IS SPLIT along the marked lines. The worker lays off the lines in any width a mill specifies and uses a sharp knife to cut the pelt. 35% of the fur will go into waste.

THE FUR IS GRADED, the pieces are stitched together, and the strips are sold in rolls. Since there is so little of it, *A* fur is the most expensive. *B*-heavy fur is more plentiful in a pelt than *A* fur and is medium-priced. *B* fur is plentiful and cheap.

You Can

▶ On 100 looms, you can save $500 to $800 a year if you "smarten up" on shuttle fur. This article, probably the first authoritative one on shuttle fur ever published, tells you how to—

- **Select the proper and economical fur for each job**
- **Handle the fur right, before and after it is in the shuttle**
- **Use light, cheaper fur and get good results**
- **Measure, trim, glue, and place fur in a shuttle**

By RICHARD B. PRESSLEY
Assistant Editor, TEXTILE WORLD

SHUTTLE FUR CAN COST a mill as much as $15 per yr. per loom. At this rate, fur represents a large item in loom costs.

It is customary with most mills to replace the fur at each warp-out; and often the loomfixer, for various reasons, may replace the fur between warp-outs. Replacement would run as high as 17 times per yr. At present fur prices, $15 is soon spent.

A careful study of weave-room furring practices and the improvement of those practices can result in a 35 to 50% reduction in fur costs—amounting to as much as $5 to $8 per loom per yr.

Select the Proper Fur

Whoever is responsible for specifying shuttle fur should be careful to choose the proper fur for each style of cloth. It makes the buying job easier to buy all shuttle furs of one grade; but filling requirements of all styles of cloth are not the same, and in most mills a single grade of fur will not meet all requirements. A fur that is too light for the job it is put on demands frequent replacement, takes the loomfixer's time unnecessarily, and causes high fur costs.

On the other extreme, heavy fur may require excessive trimming. If not trimmed, heavy fur can cause stretched filling, broken picks, and other defects. Again, money is wasted on fur costs.

Technical information on fur furnished by C. LEWIS MORRIS and JESS B. KILPATRICK of Morris Fur Co.

Reduce Your SHUTTLE-FUR Costs

In general, fur that is too heavy for a filling will cause more trouble in a piece of cloth than fur that is too light. In general also, a light, less expensive fur requires less trimming and results in less fur waste than a heavy fur.

Experiments with different weights or grades of furs should be made on standard styles of cloth. These experiments, under normal production conditions, may result in the satisfactory use of lighter, cheaper furs.

In each weave room, someone should know fur grades and weights and how the grades may be applied to different loom speeds, counts and twists of filling, and general loom conditions.

On bobbin-changing looms, it is often advisable to turn the lay of the fur hair against the pull of the filling. Placing the fur this way increases the friction on the filling. Another advantage in reversing the fur is that the tension may be reduced on the shuttle eye. Lighter furs may sometimes be used if the fur is reversed in the shuttle.

Fur is affected by the humidity of the weave room. When dry fur is put in a shuttle in a wet weave room, it will become heavier in diameter within 2 or 3 hr.

Excessive moisture in the weave room causes the hair of fur to curl and return to its natural woolly base. A weave room that has positive air control requires less fur in the shuttles and less fur attention than a non-air-controlled weave room.

Filling yarns that are properly conditioned will use lighter and cheaper grades of fur than yarns not conditioned because conditioned filling contains less static electricity and behaves well in the shuttle.

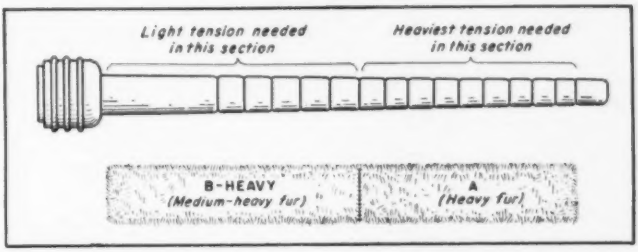
Follow Good Fur-Buying Practices

A knowledge of fur and fur application is necessary if furs are to be bought economically. Furs should not be bought too far in advance because:

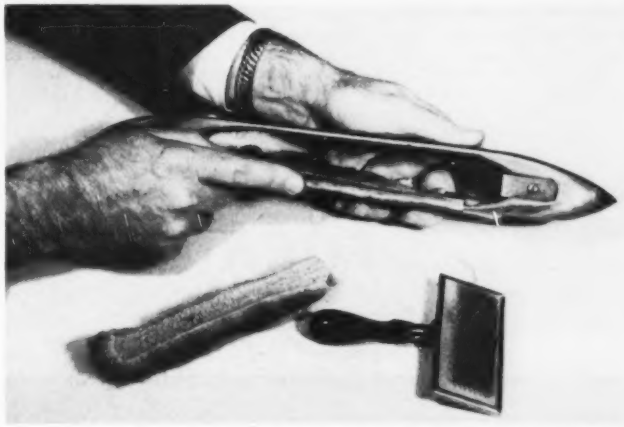
1. Cloth constructions being woven may change and different furs may be needed
2. Age dries out the natural fur oils
3. Furs return to their natural woolly base when they are not used

The first requirement in thrifty fur buying is the selection of the proper width of fur. The groove cut in the shuttle determines the width of fur to be used. For instance, a groove that

(Continued on page 244)



A FUR AND *B*-HEAVY are stitched together in one piece and are cut to the correct length for a shuttle. The filling-tension requirements are much less severe near the butt of the quill than at the end; and, consequently, a lighter fur can be used at the butt.

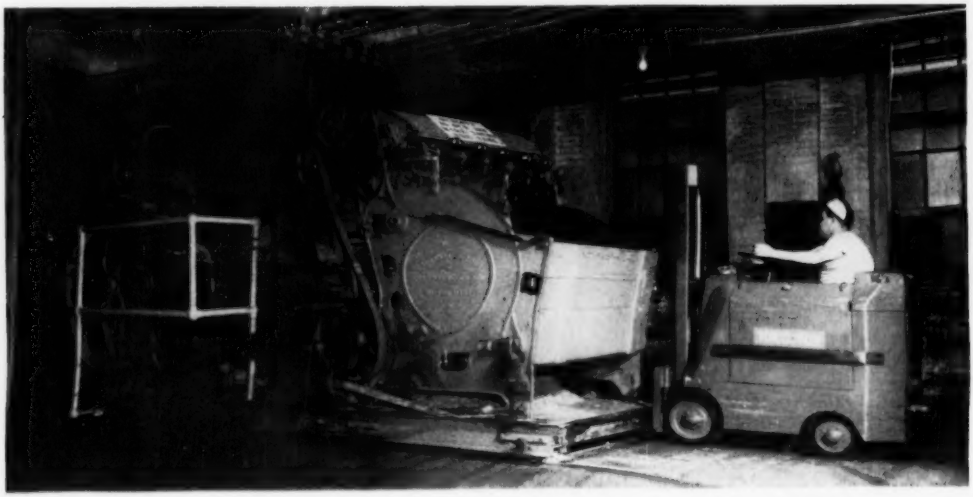


THE SHIELD is used to keep glue off the first piece of fur put in the shuttle. The corners of the pelt are rounded to prevent filling from hanging on them. After the glue dries, the fur is brushed with the steel brush.

THE EDGES OF THE FUR are trimmed after the fur has been placed in the shuttle. Fur sheared properly at the fur factory will require only a small amount of trimming. No fur should be left at the edges of the shuttle.

1 WISE USE OF PALLETS is made by Bigelow for unloading freight cars and for storage of a daily average of 50 pallet loads of caustic bleach (left), Kraftcord (center), baled material, etc. Other raw materials handled by truck are baled wool and rayon. Several men and one truck unload, store, and stack bales at the rate of one carload (50 to 60 bales) in 10 hr. Originally this job was done by an eight- to ten-man crew using hand trucks, and bales were stacked only two high.

FORK TRUCKS Cut Handling



2 MOVING THE PICKER TO THE STOCK is one way Bigelow cut blending costs. Top floor of one building has 16 bins, 30 ft. wide, to hold dyed or scoured stock. Trucks in front of the bins hold three pickers, each of which can be spotted in front of a bin. Stock fed to the picker is discharged through chutes to the floor below. But a fork truck makes things even more efficient. Formerly, when a bin was emptied, all six picker operators stopped their machines to push the picker to another bin. Time lost per move was 30 min. for each man; moves were made five or six times daily. Fork truck now does job in 12 min. Time saved: 14 to 17 man-hours and 6½ to 8 machine hours.

3 BIN PALLETS STORE YARN—up to 288 spools of it per bin—between winding and weaving operations. Fork trucks pick up pallets, place them on dolly trains of up to seven dollies, and tow them to the yarn-storage area 500 ft. away. In the yarn-storage area, bin pallets are stacked three high on 8-ft. aisles. Upper half of the bin is hinged to facilitate unloading or to permit removal of one or several spools. Use of the fork truck has permitted cutting four-man crew to two while plant production has increased.

▶ With 38 buildings in its Thompsonville, Conn., plant, Bigelow-Sanford's handling costs could go through the roof—and started to. But by brainy use of fork trucks, tractors, palletized loads, and special attachments, costs were cut in half on some jobs. Here are some slick ideas Bigelow uses that can be applied directly or can generate a handling idea for your plant.

Costs 50%

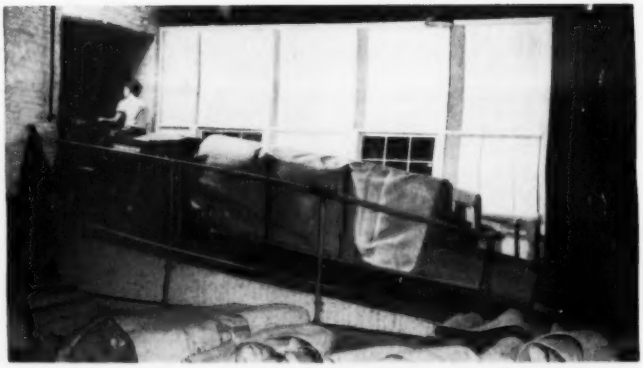
4 SPOOLS ARE TOWED in bin pallets on trains of up to seven dolly trucks—plus one bin on the truck's forks—to the weaving dept. This same system was used to get spools from winding to storage. In some cases, movement from one department to another is direct, via ramps. In other cases, movement is by truck to an elevator, by elevator to another floor, and then again by truck. Bigelow's equipment includes six Towmotor LT44 fork trucks (two with push-off attachments), five Towmotor LT35 fork trucks, one Towmotor K-530 tractor, one Yale & Towne lift truck, one Elwell-Parker electric tractor, and several Automatic transporters.

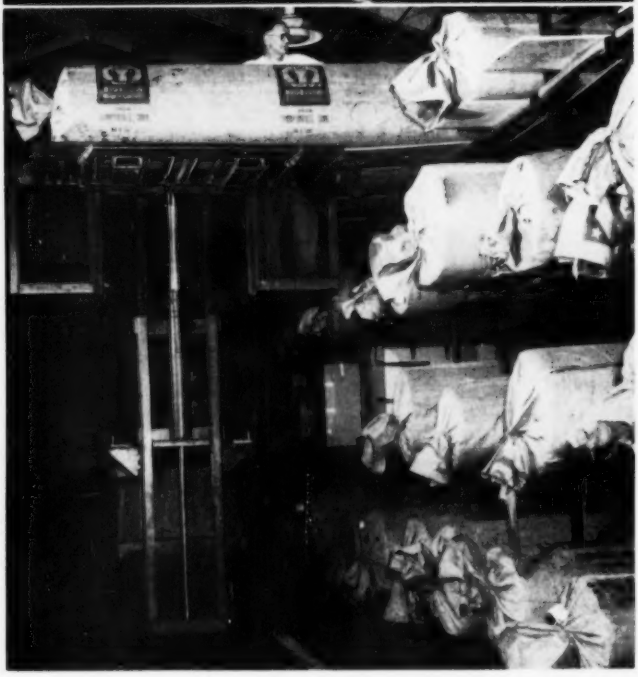
Fork Trucks

(Continued from preceding page)

5 2,300 LB. OF CARPET in four rolls up to 12 ft. wide are easily moved up this ramp between weaving and finishing by a K-530 power tractor. This particular ramp rises 3 ft. in an 18-ft. distance, and, needless to say, would provide a tough and dangerous manual-handling job.

The 38 buildings in Bigelow's Thompsonville plant, erected over a sloping area 1,000 x 1,300 ft., provide a complex situation in floor levels that has been solved mostly by ramps. But the advent of broadloom carpeting created a manual-handling problem that Bigelow solved with power fork trucks and tractors.





6 NEAT AND SIMPLE is the way to describe this special roller-platform and man-holder attachment for storing rolls of carpet up to four tiers high. A 650-lb. roll of carpet is rolled onto the 3x10-ft. roller platform mounted on the forks. A piece of ½-in. plywood forms a bed for the carpet, facilitating sliding the roll into the rack, plywood and all, and preventing the rollers from corrugating the pile of the carpet. The frame behind the roller platform, extending out on either side of the mast, is a separately-suspended pair of "crow's nests" built on the principle of a pair of saddlebags. As the forks, carrying the loaded roller platform, leave the floor, these "crow's nests" supported by slides on the mast and connected by a steel channel, do not rise until the roller platform has reached a level opposite the belt buckle of the man in the "crow's nest," at which point the forks catch the underside of the connecting channel and lift the entire assembly. The man, standing in the nest on the side toward which the roll of carpet is to be unloaded, slides the roll off the platform into the selected rack after the truck operator has reached his destination.

The shelves of the racks are of the same construction as the roller platform on the lift. The entire attachment can be installed or removed in a few minutes. Time required to pick up a roll at the end of the room and place it in a rack on either side of two aisles, 200 ft. long, is about 2 min.

From Recent STA Meetings--

VALUABLE MILL-OPERATING TIPS

CARDING AND SPINNING

Reducing Neps in Opening and Picking

Oil. Mill A reported that neps in new cotton are always reduced when less oil is put on in the beater chamber of the picker. Some oil must be put on, however, to hold the lint down.

Beater speed. Considerable interest was shown in the idea of reducing beater speed to 550 rpm. One mill that ran beaters at 600 rpm. for 3 mo. said they couldn't tell any difference in neps over the higher speeds.

Type of beater. Replacement of a blade beater with a Kirschner beater helped a lot in his nep program, according to one superintendent. His three-blade Kirschner, running at 900 rpm., has given no trouble with curled cotton at the back.

Reducing Neps in Carding

Grinding schedules. "Grind light and often," is the advice of one mill man. His mill grinds cards every 150 hr. but sets only every 450 hr. Previously, this mill was grinding and setting every 312 hr. Under the new set-up, each card is ground for about 4 hr., and the only setting the card grinder makes is doffer to roller.

Setting after grinding. There's no relationship between setting and grinding at Mill E. This mill grinds 16 cards a day but sets only six. Said the superintendent, "I think a sharp card poorly set will do better work than a dull card set perfectly."

High Lickerin Speeds

Only half as much clearer picking in spinning was reported by Mill O after it went to a 700-rpm. lickerin speed. This organization also reported fewer neps at the higher speed.

Picker Tolerances

The general feelings expressed at one meeting showed that some mills are operating successfully with ½-lb. tolerance (¼ lb. over and ¼ lb. under) of picker-lap weight. Other mills, however, seem to prefer a greater tolerance and fewer rejects. Mill A, which seemed to have the best tolerance results, uses only one type of cotton, has humidity controlled in the picker room, and has overflow hoppers.

Card Grinding

Three-point grinding—grinding the doffer, cylinder, and flats at the same time—is working out quite well in a mill making 35s, 37s and 50s yarn. The card grinder, who does four cards a shift, also sets the cards.

This mill grinds every 11 days. Quality is said to be improved when all three units are sharpened at the same time. It is usual to grind medium on flats and cylinder, light on the doffer.

Card Production

Several superintendents agreed that on combed work card production should not exceed 6 lb. per hr. if quality is to be maintained. For coarse work some mills reported up to 11.5 lb. per hr. with good results.

Long-Draft Spinning Improvements

New-type cradle. With the newer-type V-pin, Mill D is spinning 40s yarn from single roving with a draft of 29. Ends down per thousand spindle hours are 40. A 2-in. ring is used. Better results have been obtained with 1.40-hk. roving than with 1.30 or 1.35. Drafts had been to 35 but were reduced to get better work. Other spinning at this mill runs at 25 ends down per thousand spindle hours.

At Mill D, the back rolls are not adjustable. They planed off bearings ⅛ in. to allow closer settings.

Break draft. Mill S said that conventional ideas on break draft are fast changing. This mill has a break draft of 1.13 and a total draft of 30.

Apron thickness. "Uniform thickness is a 'must' with these V-pins," says Mill D. Apron thickness affects the size of V-pin used, be it 4 or 5 mm.

WINDING, SLASHING, AND WEAVING

Winder Cleaning Schedules

On Universal winders, Mill A cleans the machine every 4 hr. Each winder unit is gone over thoroughly once a week. Mill B, on 32s warp and 38s filling, blows off every 8 hr.

Abbott-winder heads are taken off and overhauled once every 6 mo. in Mill C. General cleaning is done every 2 to 3 wk. on a three-shift operation.

Barber-Colman winders in Mill D are cleaned automatically, then blown off three times a shift. Mill E, on 20s to 30s single yarn, blows off its B-C units every 4 hr. and thoroughly cleans the frames during the week ends.

Schweiter quillers in Mill F are blown off every 30 min. This mill runs a wide range—from 12s to 120s, mostly soft-twist filling. Heads of the quiller are dismantled every 6 mo.

Starch-Conveying System

Mill N stores starch below the slasher room and has a large hopper down there that holds over 75 bags (100-lb. size) of starch. A screw conveyor takes the starch to a conveyor belt that goes up to the slasher room. The starch is dumped from the belt into a hopper equipped with an automatic scale. The size man just sets the scale to the weight of starch he wants, starts the system, and then lets it operate automatically. Water for the size is also automatically measured. Errors in size-making are said to be considerably reduced with the new system.

Preventing Jerked-In Filling

"Good loom-fixing is all you need," said the superintendent of Mill A.

Mill B, however, was a little more specific. According to this mill, boxes, binders, and cutters should get the most careful attention.

Shuttle Life

Mill S is getting about 1,400 loom hours out of a dogwood shuttle on coarse work with large shuttles and large packages. Loom speed is 166 ppm.

Better results were reported by Mill

(Continued on page 252)

Based on recent meetings of the Eastern Carolina, Northern North Carolina-Virginia, and Piedmont Divisions, Southern Textile Association.

Goods Flow Through Unit

1 ▪ PRODUCTION UNITS consisting of one cutter, 10 hemmers, 4 folders, and one label tacker feed in a straight line to the Logan belt conveyor in the center of the room.

2 ▪ BUNDLE-TYING MACHINE at end of each unit production line is moved along folding tables so that bundles are easily tied and placed on the conveyor.

CONVEYORS Speed Up Bleachery Sewing and Shipping

▶ Dundee Mills has eliminated much manual trucking and many bottlenecks in its towel and napkin sewing and finishing by rearrangement of operations around a central conveyor. Time required for movement of goods has been cut one-third.

By E. DALTON WHITE, McGraw-Hill Atlanta Bureau

WHEN DUNDEE MILLS expanded its Lowell Bleachery South operations in Griffin, Ga., the sewing room was rearranged so that goods would flow from the outside to the center, from where a conveyor-belt system would take the finished products to storage in a continuous flow.

This central conveyor has reduced several hand-trucking operations, eliminated bottlenecks, and brought about a rapid and even flow of materials.

Before the system was installed, terry, birdseye and huck towels, napkins, and other goods were moved manually by truck from one operation to another through the sewing room to final storage or shipping. This system meant frequent handling of large amounts of goods, some delays, and pileups of goods at processing stations.

Setting Up the System

Preparatory to installation of the conveyor system down the center of the sewing room, the equipment layout of the plant was rearranged to give straight flow of goods.

A series of ten production units were set up on each

Conveyors Speed Handling

CONVEYOR IN WRAPPING DEPT. on second floor can be used for special packing of assorted goods in each box as it moves along the packing line. Conveyor runs to the end of the room and then down through the floor to the shipping department.

Production Lines to Conveyor

3. OVERPASS in the belt conveyor in the sewing room allows for passage from one side to another. Here the conveyor is moving finished goods to open-stock storage.

4. GOODS NEAR OPEN-STOCK STORAGE room are shown here at the end of the line. Sorting is done as goods are placed in proper hand trucks.

side, perpendicular to the central conveyor. Each unit consists of one cutter, 10 hemmers, four folders, and one label tacker.

Goods from the finishing department are brought by truck to the different cutting tables. From here, goods flow in a straight line through hemming, label tacking inspection, and folding. Goods in lots of one to four dozen are stacked on the end of the folding tables and are then tied by a Saxmeyer machine and placed on the conveyor.

This simplified method is in marked contrast to the previous one. While the new system has not increased machine output, it has reduced by one-third the time required for goods to move through the sewing room to storage or shipping. The main reason is that bottlenecks have been eliminated, and time previously consumed in stacking and moving goods from one production group to another has been saved.

Before the central conveyor system was installed, sewing-room production was arranged so that the cutting tables of the two production lines were in the center of the room. Goods then flowed from center to outside, where bundles were tied and stacked in hand trucks for movement to storage.

Under the old system, goods were stacked in trucks after cutting and moved to the sewing machines, then restacked in trucks and transported to labeling. The old

(*Continued at bottom of next page*)

in Other Parts of Dundee Plant

PACKED GOODS from the second-floor wrapping room come downstairs on the conveyor to the shipping department. Goods are taken from the belt, loaded in cartons on the roller conveyor, and pushed to shipping.

FROM AUTOMATIC STEEL-BANDING MACHINE, cartons are pushed on the roller conveyor to floor scales and then to the storage line where they are picked up by fork lift truck for movement to warehouse storage or the shipping dock.

Dyer-Finisher Joins TEXTILE WORLD Staff

George M. Moisson, Jr., recently a supervisor in the dyeing and finishing laboratories of Deering, Milliken & Co. at Abbeville Mills, Abbeville, S. C., has joined the New York staff of TEXTILE WORLD as assistant editor. George will be in charge of TW's bleaching, dyeing, and finishing articles and departments.

George is a graduate of the Textile Chemistry and Dyeing Course at the School of Textiles, Clemson College. After receiving his degree, George spent a short time on the teaching staff at the school. He later acquired experience in dyeing and finishing at Abbeville Mills before entering the laboratory. At Abbeville, George worked mostly on dyeing of synthetic fibers and blends in stock, yarn, and piece forms. Before World War II, George was a dyer's assistant at Westboro Weaving Co., Greenville, S. C.

During World War II, George completed four submarine war patrols with the U. S. Navy in the East China Sea and in the Sea of Japan. He had returned to the U. S. to help commission a new submarine when the war ended.

GEORGE M. MOISSON, JR.

George is a member of Phi Psi textile fraternity and a senior member of AATCC.

The adding of Mr. Moisson—a dyer—to TW's full-time staff is another step in carrying forward TW's program of timely and sound editorial service to the textile industry. It is a basic requirement of TW that all editors have had textile-mill experience and, if possible, a textile-school education. The recent broadening and advancement of textile chemistry, dyeing, and finishing called for a full-time man educated and experienced in these fields to round out TW's editorial service. Adding Mr. Moisson's knowledge and ability to those already in service on the TW staff should help insure competent and timely coverage of new developments and techniques for TW's readers in dyeing and finishing plants and laboratories.

TW's consulting editors on chemistry, dyeing, and finishing—C. Norris Rabold, director of chemical research, Erwin Mills, Inc., and president, AATCC, and Henry D. Grimes of one of the largest woolen and worsted mills in the U. S.—will continue to supplement the efforts of the full-time staff in insuring timely and competent coverage of developments in this important field.

Sewing-Room Conveyor

(Continued from previous page)

system was to group all cutting operations in one area. This arrangement meant loading and unloading at each group, and at times produced bottlenecks. The reason for this group arrangement was that all like machines were operated off the same line shaft wherever possible.

From inspection and folding, the goods were tied in bundles, restacked on the folding tables, and later placed in hand trucks and transported to storage.

Under the new arrangement, the group system has been replaced by the unit system, with each unit made up of complete operation in straight line flow from cutting to bundle tying and placing on the central conveyor to storage.

Conveyor-System Details

The conveyor is a flat, slider-bed arrangement, 270 ft. long, with stitched canvas belt 28 in. wide. It is driven by a 2-hp. motor at a rate of 50 ft. per min.

Maintenance of the system presents no problem. All bearings and end and return rolls are lubricated once every 2 wk. Belt tension is checked weekly, and takeup is adjusted at that time.

The slider-bed-type was selected over a roller-bed type because it eliminated the possibility of dust, lint, or grease from the rollers getting on the belt and possibly soiling the goods.

Plans are now in progress to extend the conveyor system into the open-stock room with lateral belts that will connect to another system leading to the wrapping room. Also, a complete system will be installed in the new open-stock storage building now under construction.

When the entire conveyor system is completed, it will be possible to move goods automatically through sewing, storage, wrapping, and shipping. Not only will the system be a time saver, but it will eliminate a great deal of physical effort and lifting.

Conveyors Elsewhere in Plant

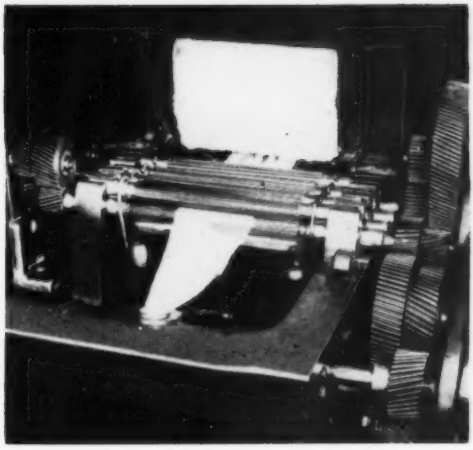
At present there are two other materials-handling systems in the plant that provide continuous flow from wrapping through packing and shipping.

Handling of goods in and from the second-floor wrapping department to first-floor shipping was solved by installation of a belt-conveyor similar to the one in the sewing room. A conveyor runs along the line of wrapping tables to the end of the room and then down through the floor to the shipping department.

Goods are made up in lots and are wrapped and stacked on the ends of the tables. When the lot is completed, the bundles are placed on the conveyor. The first package has the shipping instructions for the lot attached to it.

In the shipping department, goods are taken off the conveyor and packed in cartons that are slid along a roller conveyor to strapper, then to scales. At the end of the conveyor, the boxes are picked up by fork lift truck for movement to storage or direct to the shipping dock.

The roller-type conveyor in the shipping room offers many advantages. Packed cartons are easily pushed along the line without much physical effort. The ease and rapidity of handling makes for greater efficiency and enables the use of automatic strapping, rapid weighing and marking, and steady flow to storage. This arrangement is a great improvement over physical lifting and hand movement by truck, or skidding the carton over the floor from one station to another.



POOR-QUALITY DRAWING will cause bad work on the roving frames, increased end breakage in spinning, and high loom stoppage in weaving.

Mill Organization -- Drawing Frames

Process	Breaker	Finisher
Type of roll	Metallic	Metallic
Grain sliver— front	68.0	71.5
Grain sliver— back	54.5	68.0
Ends up to back	6	6
Draft	5.06	5.84
Draft constant	227.7	227.7
Draft gear	45	39
Diameter front roll	1 3/8 in.	1 3/8 in.
Rpm. front rolls (Std.)	353	353
Length of staple	1 1/16 in.	1 1/16 in.
Rolls set: Front to 2nd	1 7/16 in.	1 7/16 in.
2nd to 3rd	1 9/16 in.	1 9/16 in.
3rd to 4th	1 11/16 in.	1 11/16 in.
Trumpet gauge	0.158	0.158
Tension gear	42	41
Lb. wt. Front roll	14	14
2nd roll	14	14
3rd roll	16	16
Back roll	18	18

Poor Quality Cloth Traced To Faulty DRAWING SLIVER

- **Inferior drawing sliver affects the quality of all process products right through to the finished cloth.**
- **Many drawing faults can be prevented by better and more careful frame fixing.**
- **The condition, correct setting, and weighting of drafting rolls are most important in making even sliver.**
- **Close supervision of lubrication, scouring, and cleaning methods is necessary for consistently good, clean drawing sliver.**

By E. H. HELLIWELL, Contributing Editor, TEXTILE WORLD

THE MANAGEMENT of a cotton mill recently started an investigation to determine the causes for the poor appearance and low break tests of their finished cloth. Tracing back through the processes from weaving, it was found that poor-quality drawing was directly responsible. An inferior drawing product had resulted in bad-running work on the roving frames, increased end breakage in spinning, and high loom stoppage in weaving.

It was decided that a thorough check on all drawing-frame conditions, methods, and maintenance would be the quickest and surest way to find the causes of poor work and to indicate the best means of correcting the faults. To provide a systematic and complete check of all functions, the following divisions were made: organization, roll settings, speeds, mechanical condition, methods of maintenance, lubrication, cleanliness, operation, sliver variations, and humidity control.

The mill's standard organization, as given, appeared suitable for the 1⅛-in. cotton being run, with the exception of the roll settings. These settings were too wide; and so for better fiber control, settings were recommended of 1⅜, 1½, and 1⅝ in. respectively between front and middle and middle and back rolls. It was found that settings should be made between bosses instead of setting with gauges between stands. This method eliminated many of the variations found in the roll settings.

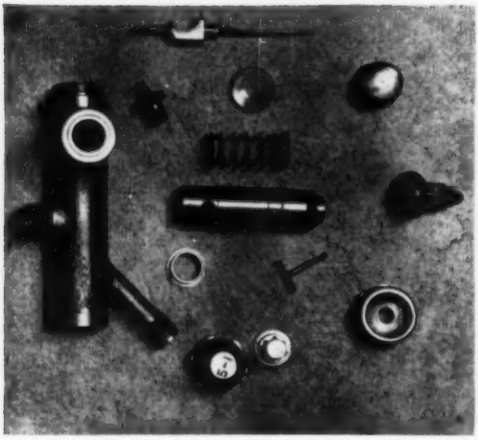
Front-roll speeds were found in many cases to be much higher than standard established speeds. It was recommended that these speeds be reduced closer to standard for better-quality sliver. The production rate of these frames at standard speeds was sufficient to take care of all roving requirements.

Top- and bottom-roll collars on the metallic rolls in some cases were badly worn. Flat spots on collars caused jumpy rolls and uneven sliver. Replacement of all worn rolls was carried out.

Many calender-roll gears were worn and not set in proper mesh. These were replaced and reset correctly. Knife bars and spoons on some stop motions needed attention to give quicker action when an end ran out.

It was found that the distance of

(*Continued on page 280*)



THIS ATOMIZER has been disassembled, cleaned, and inspected. Since no parts are worn, the assembly will be rebuilt and placed back in service when another unit is removed.

THIS TRAINED HUMIDIFIER MAN is adjusting the spray on the atomizer that he has just installed. The atomizer is automatically self-cleaning until a backlog of foreign matter builds up.

Control Moisture With a Trained HUMIDIFIER MAN

Your humidifier man—

Should be specially trained in humidifier care

Should have trained men under him

Should service the humidity system regularly

Will then keep the moisture controlled

By W. C. WESTBROOK, Consulting Editor, TEXTILE WORLD

MODERN HUMIDIFIERS require little attention other than periodical cleaning and adjustment. However, the attention they do require is very important.

In some mills, the maintenance of the humidity system is left to the overseers of the various departments. Some of these overseers do not realize the importance of the system, or they do not make an effort to learn what they should know about the subject. Consequently, the humidity system is often neglected until it does not operate correctly; then expensive repairs or replacements are required.

Best results are obtained if a reliable man is placed in charge of all the humidity systems in the mill. His duties should include training a number of employees to clean, repair, adjust, and maintain all the units and the entire humidity system.

By this method, the system will receive the regular attention of full-time men who know humidifiers. A schedule of regular inspection and maintenance should be installed and strictly followed to insure the entire system being in top-notch condition at all times.

A study should be made of the humidity requirements of the different departments and rooms. Many variable conditions affect the humidity even if the usual servicing requirements are practiced.

For instance, units near a door or other opening may require cleaning two or three times more often than the average unit; others, in close quarters, may require constant attention to prevent wetting down. Local conditions inside the mill, seasons, and atmospheric conditions are all factors that must be considered. The alert maintenance man will soon learn the eccentricities of the units under his care and will service the units accordingly.

Fan-Type Humidifiers

The fan-type humidifiers are still used in many mills and usually require more care than later types. These units must be thoroughly cleaned at least once a week and often twice a week.

To clean one of the fan-type units, the operator climbs a short step-ladder, shuts off the water valve, and stops the fan motor. The housing is cleaned with a rag or brush. Sometimes a stiff wire brush or putty knife must be used to remove the accumulated lint from the metal. The fan blades must be cleaned because the lint that adheres to them places a drag on the motor and slows the blades. The lint also

THE AUTOMATIC CONTROL is checked as part of a routine service. The control is cleaned each shift and requires little other maintenance attention.

THE HUMIDITY RECORDER should be placed in an area where the air is as representative as possible of that of an entire room. The moisture content of the air should be checked periodically.

provides a rough surface that does not properly disperse the air.

The water jet, deflector, and strainer should be thoroughly cleaned. While the jet is out, the clean-out hose should be connected to the water main and to the drain. The valve is opened and the sediment is washed out of the drain pipe. In extremely dirty units, it is necessary to connect the compressed-air hose to the drain pipe to thoroughly clean it. After the unit has been cleaned, the air hose has to be turned on again manually and adjusted. The operator should check back soon to see that the unit is performing satisfactorily.

Atomizer-Type Humidifiers

The atomizer-type humidity units should be cleaned and inspected every one to three weeks. The frequency of servicing depends on output, amount of lint in the air, condition of the air and water, etc.

Some of the later-model units are partly self-cleaning. In these models, the clean-out mechanism is operated by a diaphragm so that both air and water nozzles are automatically cleaned each time the humidifier is shut off manually or by an automatic regulator.

The atomizer unit can be easily taken down and reassembled if the functions of the various parts are learned. The unit should be thoroughly cleaned and all worn or damaged parts replaced before it is reassembled. For efficient maintenance, extra units should be kept on hand. When it is necessary to make repairs, the troublesome unit can be completely removed, an extra one put in service, and the repairs made later on the removed unit.

Air and Water Lines

The air and water lines should also be drained and cleaned periodically. The frequency of this operation depends on the amount of oil, rust, or sediment that finds its way into the pipes. The air line should be opened and drained once a day, if possible, and at least once a week to remove any oil, rust, or water present.

If the humidity air line is connected with the line that is used to furnish compressed air for blowing out and cleaning machinery, the pressure will often drop until the humidifiers will not operate effectively. The recommended air pressure is 30 lb.; but if the system is in good condition, it will give satisfactory results with pressures as low as 20 lb.

If the units near the end of the line are not expelling as much water as the other units, or if the moisture is in the form of droplets instead of a fine mist, the fault can usually be laid to low air pressure.

Low pressure can be caused by too many outlets on the line or by the air line becoming filled with water. To keep water out of the line, place a trap equipped with a drain cock at the end of the line. Water, oil, and sediment in the air line will drain into the trap and can be drawn off periodically.

A trap equipped with a filter should be placed where the feeder lines branch off the main air lines. Most of the oil and rust introduced into the line at the compressor can be removed from the trap.

When iron pipe is used, as on the air lines, rust will form in the line and cause trouble in the humidifiers. The rust is usually in insufficient quantities to cause trouble other than to clog the humidifier nozzles, but sometimes it will be sprayed on material or cloth.

The water lines also need occasional draining to remove rust and sediment that may have collected.

Other water-line troubles will be few if the water supply is clean. Good strainers in the water box aid in keeping the water clean. When the water lines show symptoms of becoming clogged, it is advisable to blow them out with compressed air or flush them with a solution of sal soda.

Storage Tank

The water box or storage tank requires occasional care. The tank should have a tight-fitting, though easily removable, cover that will exclude lint and trash. The box should be cleaned, inside and out, as often as conditions require. The overflow drain should be blown out occasionally with compressed air and the strainer kept clean.

To control condensation of water on the surface of the pipes, it is often necessary to install heaters in the water tanks. The heater should be kept in good condition and adjusted to keep the water at room temperature. Hot water should not be used, as it will damage the diaphragms of certain types of humidifiers and will upset the relative humidity and temperature balance of the room.

(Continued on page 242)

SPINNING RESEARCH LABORATORY is complete yarn-spinning unit except for picker.

Insurance for the Future— For 246 Southern Mills

► That's what the combination of the School of Textiles, North Carolina State College, and the North Carolina Textile Foundation, Inc., add up to—and Southern mills are reaping the benefits as they work toward the objective of a college-trained man in every supervisory position.

***By WILLIAM A. NEWELL,** Managing Editor, TEXTILE WORLD*

UNTIL RECENTLY, there have been two basic things wrong with textile schools.

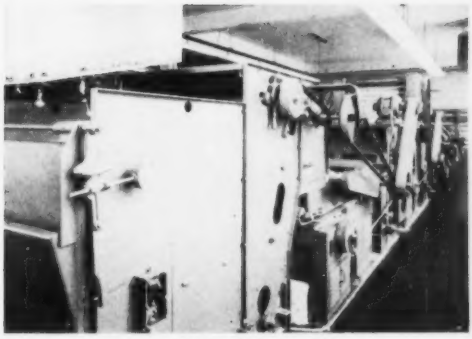
First, the men on the teaching staff were underpaid. The result of this fault was two-fold—the schools couldn't attract the best men, and the men they did get had little incentive or opportunity to keep up to date on new developments both in textile processing and in teaching methods. Once a course was laid out, it had to suffice for years—not uncommonly because the teacher was too busy supplementing his meager income by outside work.

Second, machinery in textile schools was out of date. That may not have been too serious, as basic principles have not changed markedly; but it certainly helps if graduates are at least familiar with the latest in equipment, or at least the most recent trends. Pity the graduate of today who hasn't been acquainted with the short-cut systems of processing worsteds. His job tomorrow is going to call for basic knowledge of such machines as the pin drafter, Pacific converter, and other more modern machinery which is now being used in American-system spinning. Until just a few years ago, the most modern loom in the weaving department of one textile school was a Model-E Draper made before 1910. (The X-model was introduced in 1930).

A group of far-sighted men in North Carolina set out to correct problem No. 1 a few years back. Their success has spurred the State of North Carolina to help out with problem No. 2.

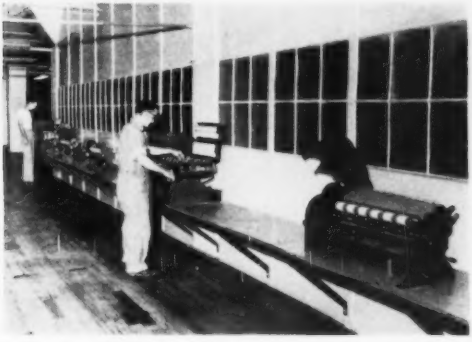
The result is the present-day School of Textiles, North Carolina State College, Raleigh—one of the biggest and unquestionably one of the best college-level textile schools in the world.

These men realized that you can't get good men out of textile schools unless they're taught by good men out of industry. So they set up the North Carolina Textile Foundation, Inc., to enable the school to get the best talent in the industry and to keep that talent in top-notch shape. Their means (since adopted in one form or another



LATEST-TYPE OPENING EQUIPMENT that does less severe beating feeds cotton to two-beater-Saco Lowell picker with blending reserve.

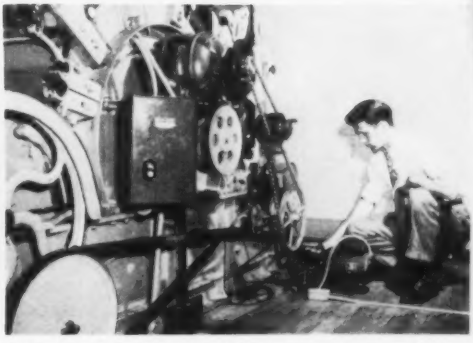
LATEST-MODEL WHITIN J-3 COMBER is example of new equipment made available for study by students.



THESE FIVE FULL-SIZE MODELS are used to teach differences in drafting elements on various machines. Almost every type is on display. Spacing allows students to gather around for demonstration.

SHORT FRAMES of every type—long and regular draft—give students broad foundation in yarn spinning. This view shows less than half of spinning units installed.

SOAKING, EXTRACTING, WINDING, AND THROWING are taught in this continuous-filament laboratory.



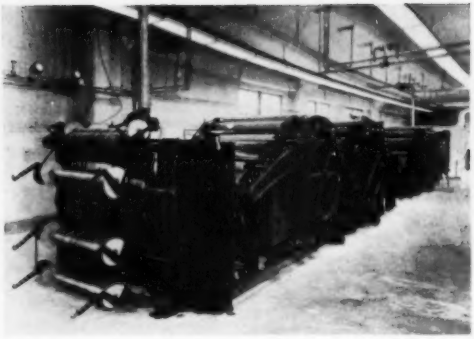
CARD IN SPINNING LABORATORY has variable-speed drive on every rotating element, dial gauges for setting flats.

by almost every other textile school) was to supplement state salaries and to provide traveling expenses so that these men might keep in touch with the latest developments.

At present, 246 mills are members of the foundation. The total contributed to and earned by the foundation to date is $1,196,401. The amount spent by the foundation for the purposes mentioned is $277,140. The present balance on hand in the Foundation is $919,261. Each member mill contributed in proportion to its size.

Is it a sound investment? Here's what the mills (member and nonmember) get in return:

1. **College graduates with a thor-**

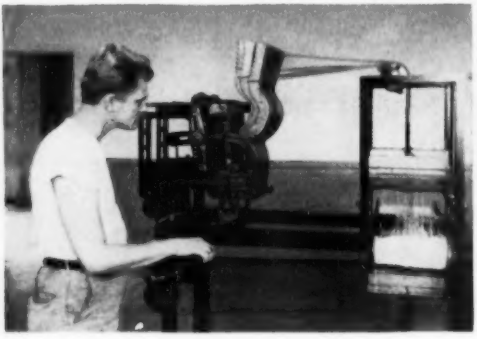


WOOLEN CARD is one of small number of woolen- and worsted-processing machines—a section that has high priority for expansion.

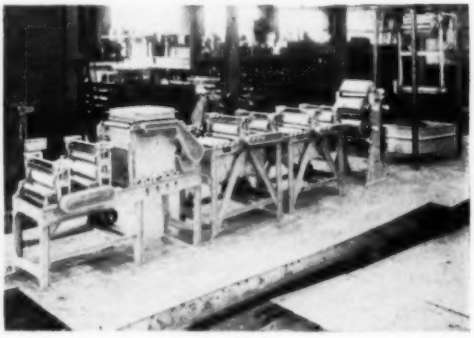
HIGH-SPEED WARPER is in same room with full-size slasher and model slasher for teaching warp preparation.

A WIDE VARIETY OF old and modern circular, Raschel, full-fashioned, and tricot machines is available in the knitting laboratory. Every student gets some knitting; some major in it.

PLAIN WEAVE ROOM has E, X, XL, and XD Draper looms. Other weave rooms contain Draper X, XK, and XD dobby looms, C&K C-4, S-3, S-5, and S-6 dobby looms, and jacquard and plush looms.



CLASSROOM MOCKUPS of dobbies, stop motions, picking motions, etc., are used to teach motions of looms away from noise of laboratories.

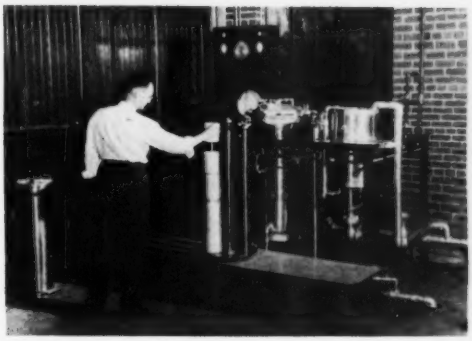


CONTINUOUS-BLEACHING RANGE for fabrics up to 17 in. wide, shown here in plant of Greenville Steel and Foundry Co., makers, is now installed in school.

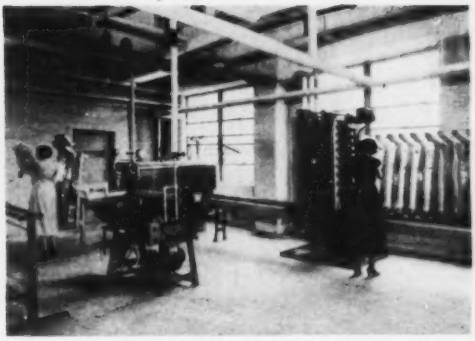
ough basic training in all aspects of textile manufacturing from bale to finished fabric, plus a knowledge of timestudy, instrumentation, quality control, mill organization, personnel relations, and many other essentials of successful mill operation.

That the abilities of these men is recognized and wanted is indicated by the fact that there are few problems in placing graduates.

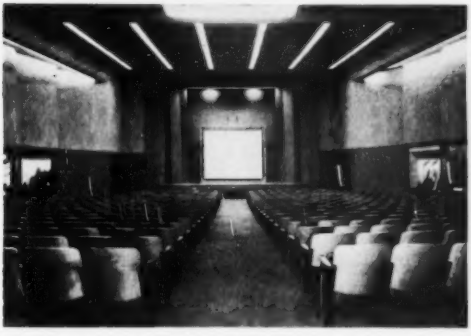
One reason for the demand is that many Southern mills are working toward the objective of having a college graduate in every supervisory position. No overseer in these mills calls the front office to find out what gear to put on to change the yarn



PACKAGE-DYEING is taught with this small unit Gaston County machine with full instrumentation and controls.

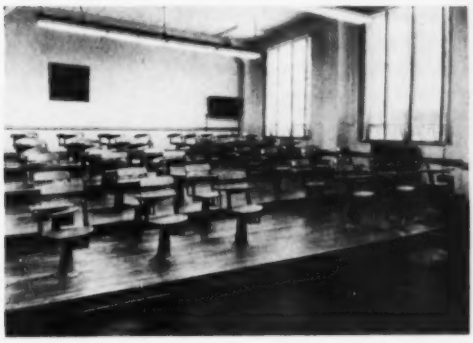


HOSIERY FINISHING LABORATORY has latest models of pre-boarding, dyeing, and final-boarding units.

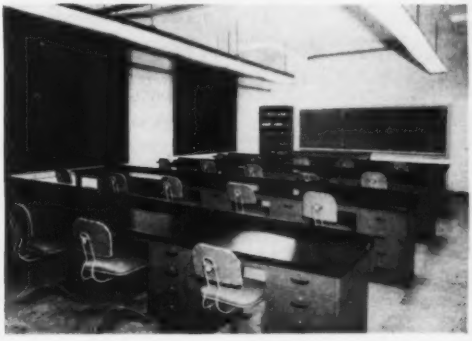


ONE USE OF THIS AUDITORIUM is for the B. B. Gossett Lecture Series in which top leaders in industry speak to students on a semi-weekly schedule.

INSTRUMENTATION COURSE taught in this laboratory was set up in recognition of increasing use of control instruments by industry. Here students find out what makes the instruments tick.



BANKED CHAIR-DESKS in one of typical new classrooms insure that every student will always have a clear view of lecturer or demonstrations.



MICROSCOPY is mighty important in identifying fibers or tracing fabric defects. Here students learn how to do both through proper use of the microscope, and learn photomicrography, too.

count produced. These mills also want men with the intelligence to handle people and settle grievances at the lowest possible level. Top management in these mills can devote full time to major operational problems—that's one reason they're successful.

2. **The results of research projects undertaken by the school** because it has the men and equipment qualified to handle them. One outstanding example is the study of nep formation recently completed at North Carolina State—a project that has already developed new tools for the industry and that will undoubtedly be one of the most significant in terms of benefits

(Continued on page 238)

Teamwork

Tired but happy, home they go with a good bag. A man and his dog, the perfect team for good hunting. Teamwork helps — in sport — in industry.

What can we do to help insure the future of your business? That's what Butterworth engineers have been asking for 131 years — and we ask the question with special meaning today.

If you are thinking of new machines, we will do the utmost to meet your requirements, within the limits of our metal allotments. If you are making long range plans our engineers are at your service. Even now they are teamed with many of America's leading mills, thinking of the years ahead and planning with them to maintain their competitive position.

Butterworth service is offered too, to help your wet finishing department get the most out of what you now have — to keep it operating at peak efficiency. It may be only a spare part you need — but if you need it in a hurry, you'll get it in a hurry if it is humanly possible. That is a big part of our service.

A letter, a wire or a phone call will put a Butterworth engineer on your team.

H. W. BUTTERWORTH & SONS COMPANY

Bethayres, Penna. : : 187 Westminster Street, Providence, R. I.
1211 Johnston Bldg., Charlotte, N. C.

Machines for Bleaching, Boiling-Out, Mercerizing, Dyeing and Finishing.
Pot Spinning Machines for Synthetic Fibers : : Calender Rolls

BUTTERWORTH

BATTERY-FILLER TRUCKS eliminate use of stationary boxes at the loom and some handling as well.

BATTERY FILLER TRUCKS
Have Advantages and Limitations

▶ Battery-filler trucks eliminated enough handling to permit a 50% increase in the number of batteries filled in one mill. But there are some limitations to their use as well. This story can help you decide if your mill can use the trucks.

By W. C. WESTBROOK, Consulting Editor, TEXTILE WORLD

AFTER A YEAR'S EXPERIENCE with battery-filler trucks, one Southern mill has decided that use of the trucks has advantages over previously used methods. Main advantage of the trucks is that they eliminate handling, but there are some limitations to their use.

One of the trucks designed for battery filling consists of a rack on casters with a removable hopper that holds about 300 bobbins. The hopper on some models of this truck can be adjusted vertically, and can also tilt. The battery hand pushes this truck down the weave-room aisle and removes filling from the hopper as needed.

The truck eliminates two handlings of the filling. The old method was to have the operator draw the filling from a chute into a box that was pushed to the filling-conditioning machine and dumped. The filling was drawn from the conditioning machine into another box, and the filling man then pushed this box down the aisle and replenished the stationary boxes attached to the loom. Battery hands removed the filling from these boxes by the handful and placed it in filling bags or apron pockets for use in filling the batteries.

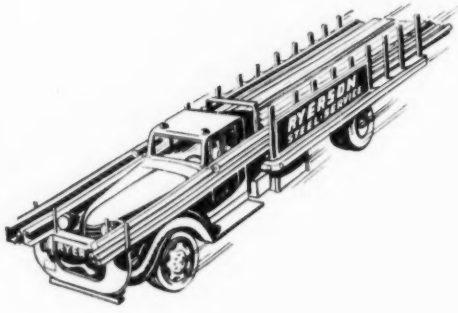
When the battery filled trucks are used, the same procedure is followed through the conditioning operation but the filling is drawn from the machine into the hoppers. The hoppers are placed on a specially made truck that accommodates two hoppers, end to end. The filling man then takes the hoppers and places them on the battery-filler trucks. Each battery hand has two trucks so that when the hopper on one truck is exhausted it can be

RYERSON

Ryerson Steel Service awaits your call at fifteen great plants, strategically located for quick delivery anywhere.

STEEL

Carbon, alloy, stainless—every kind of steel is on hand. Though some sizes are still occasionally out of stock, most requirements are usually available.



SERVICE

Ryerson representatives are ready to assist you on any problem involving the purchase, fabrication or application of steel. Just call your nearest Ryerson plant.

PRINCIPAL PRODUCTS

CARBON STEEL BARS—Hot rolled and cold finished

STRUCTURALS—Channels, angles, beams, etc.

PLATES—Many types including Inland 4-Way Safety Plate

SHEETS—Hot and cold rolled, many types and coatings

TUBING—Seamless and welded, mechanical and boiler tubes

ALLOYS—Hot rolled, cold finished, heat treated. Also tool steel

STAINLESS—Allegheny bars, plates, sheets, tubes, etc.

BABBITT—Five types, also Ryertex plastic bearings

MACHINERY & TOOLS—For metal fabrication

RYERSON ® CERTIFIED STEELS

JOSEPH T. RYERSON & SON, INC. PLANTS AT: NEW YORK • BOSTON • PHILADELPHIA • CINCINNATI • CLEVELAND • DETROIT
PITTSBURGH • BUFFALO • CHICAGO • MILWAUKEE • ST. LOUIS • LOS ANGELES • SAN FRANCISCO • SPOKANE • SEATTLE

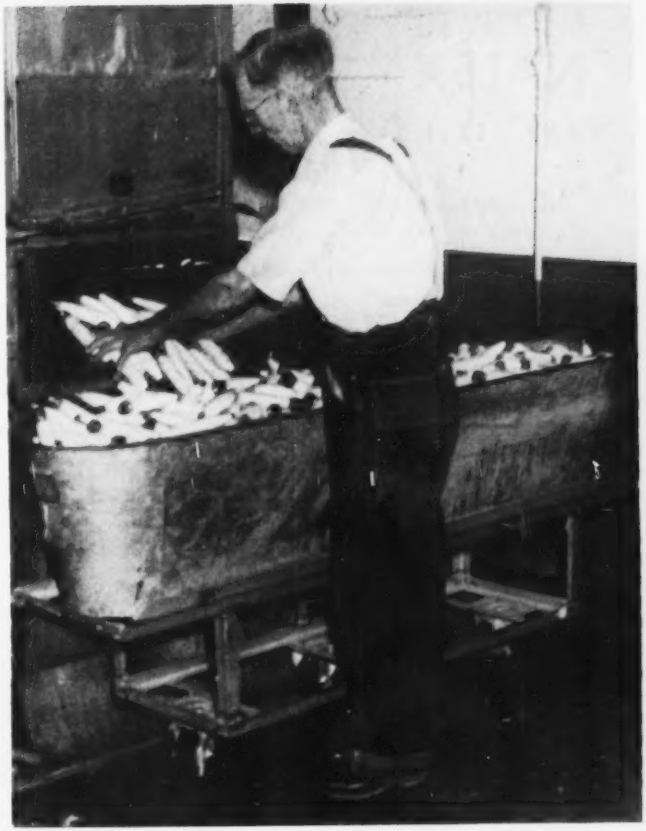
exchanged for a truck with a filled hopper. A sufficient number of extra hoppers is used to permit the filling to "set" at least 2 hr. from the time it passes through the conditioning operation until it is placed in the battery.

The stationary filling boxes are removed from the looms. This removal gives the entire room a neater look. These boxes are hard to keep clean and very often become partly filled with soiled filling and partly used bobbins. With the battery-filler trucks, the filling is used in the same order in which it is spun and no old filling or "pieces" will accumulate. Less handling of the filling helps minimize the danger of soiled and damaged yarn, and very few bobbins are dropped to the floor. The battery hand does not have to lift or carry any filling, and less time is taken to replenish the supply because the hopper will hold about ten times as much filling as the bag or apron pocket.

Although some time is saved in the handling operation by the battery hand, this time is consumed by the operator having to push the truck down the aisle and often being delayed by someone or something in the aisle. However, a substantial saving is made in labor from the conditioning operation to the trucks. The elimination of one handling of the filling by this operator and the removal of the stationary loom boxes permits a 50% increase in the number of looms serviced without increasing the workload.

The battery-filler trucks have limitations that make them undesirable for certain jobs. If more than one kind of filling is used by the battery hand, the truck is not suitable unless the hopper is always present. If the weaveroom aisle has obstructions, is too narrow, has no cross aisles large enough to accommodate the truck, or if the floor is very rough, the truck is not practical. The battery hands sometimes have trouble moving the trucks in the aisles when the loomfixer leaves tools or loom parts on the floor. Also, compressed-air hose and other obstructions must be contended with.

A poll conducted among the battery hands using the battery-filler trucks disclosed that the ones who learned to fill batteries by carrying the filling in bags or apron pockets did not like the trucks. Those learning to fill batteries with the trucks liked them. This result, however, is the old story of people resisting change and does not prove or disprove anything. The management is convinced that, for some of their looms and weaves, the trucks are an improvement and plan not only to retain the ones already in use but also to obtain others when and where needed.



SPECIAL TRUCK that holds two hoppers of filling is used at the filling conditioner.

AFTER CONDITIONING, filling is allowed to "set" for about 2 hr. on a table that permits easy transfer of hopper to truck.

NALEX WARP SIZING — for Combed Yarns

NALEX is a warp sizing starch with *chemically controlled viscosity*.

Here's what that means to you. It—

- Sizes uniformly
- Penetrates deeper
- Adheres all loose fibers securely
- Increases tensile strength of yarns
- Insures smooth yarns and well "closed in" fabrics

It has boosted weaving efficiency in leading mills from 2% to 5% over ordinary warp sizing.

NALEX is economical to prepare, too. It requires only 20 or 30 minutes at the boil. Only a minimum concentration of tallow compound is needed. And it permits operation of weave rooms at *lower humidities*.

Ask for a NALEX demonstration *now*. A National technician can run off a few beams without upsetting your regular production.

Offices: 270 Madison Avenue, New York 16; Boston; Providence; Philadelphia; Atlanta; New Orleans; and other principal cities.

National STARCH PRODUCTS

MILL Maintenance MANUAL

KEEP 'EM RUNNING

With Sound Maintenance Throughout the Mill

THE PINION GEAR is being tightened by a loomfixer. This job is done every 6 mo. An extra pinion gear has been placed over the operating pinion gear to keep the gears from turning as the nut is tightened.

MOTOR IS BEING OILED while the loom is stopped; oil is 250 S.U.S. Viscosity. The oiler, an experienced and well-trained employee, is careful that the oil reservoir does not overflow.

LOOM-MOTOR Maintenance Prevents Motor Failures

- Systematic lubrication increases the life of the motor
- Anti-friction bearings require special greases
- Periodic cleaning of motors prevents winding replacement
- Operating conditions determine the frequency of cleaning

By **EUGENE P. SCHREMP**
Consulting Editor, TEXTILE WORLD

and

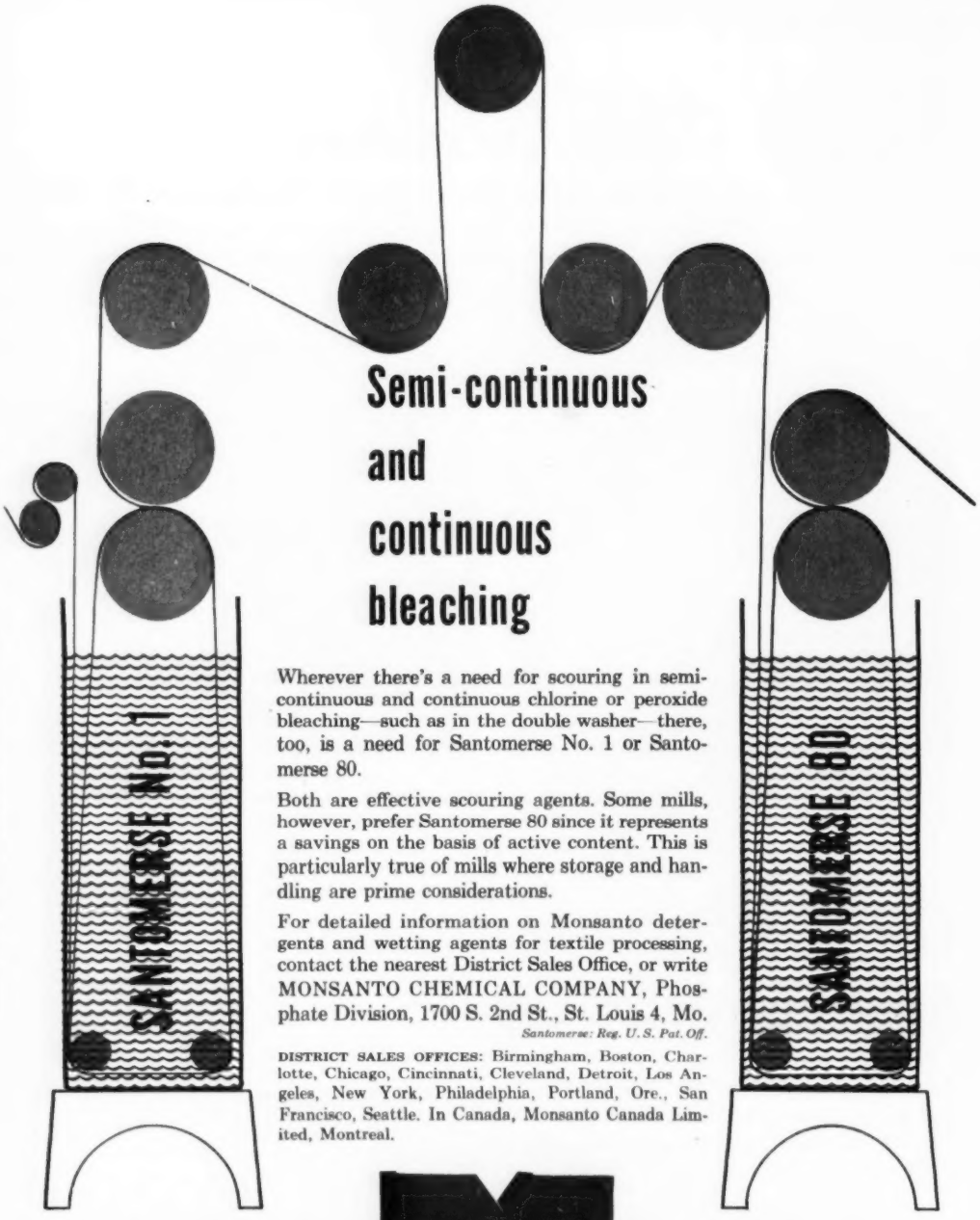
RICHARD B. PRESSLEY
Assistant Editor, TEXTILE WORLD

SINCE REGULAR SERVICING of loom motors is essential for dependable long-time operation, a systematic program of maintenance and inspection should be established and enforced. Most loom-motor failures are caused by mechanical trouble rather than electrical; and prevention, rather than repair, should be the aim of the loom-motor maintenance program.

For Sleeve-Type Bearings

Loom motors having sleeve bearings lubricated by oil should be checked and re-oiled at regular intervals. It is important to use the grade of oil specified by the manufacturer—usually 250 S.U.S. Viscosity—and that the frequency of oiling be adequate. Too little oil will result in wear at the rotor shaft and sleeves. Over-lubrication will cause the windings

(*Continued on page 340*)



Semi-continuous and continuous bleaching

Wherever there's a need for scouring in semi-continuous and continuous chlorine or peroxide bleaching—such as in the double washer—there, too, is a need for Santomerse No. 1 or Santomerse 80.

Both are effective scouring agents. Some mills, however, prefer Santomerse 80 since it represents a savings on the basis of active content. This is particularly true of mills where storage and handling are prime considerations.

For detailed information on Monsanto detergents and wetting agents for textile processing, contact the nearest District Sales Office, or write MONSANTO CHEMICAL COMPANY, Phosphate Division, 1700 S. 2nd St., St. Louis 4, Mo.

Santomerse: Reg. U. S. Pat. Off.

DISTRICT SALES OFFICES: Birmingham, Boston, Charlotte, Chicago, Cincinnati, Cleveland, Detroit, Los Angeles, New York, Philadelphia, Portland, Ore., San Francisco, Seattle. In Canada, Monsanto Canada Limited, Montreal.

SANTOMERSE No. 1 **MONSANTO** CHEMICALS — PLASTICS **SANTOMERSE 80**

SERVING INDUSTRY . . . WHICH SERVES MANKIND

MILL Maintenance MANUAL

▶ The textile industry is like a "modern" home: A power failure can put it completely out of business. Production stops, goods in process are damaged, and idle hands stand helpless until the trouble is corrected.

All too frequently, dependable central-station electric power is taken for granted, and the attitude is not to disturb electrical equipment so long as it is functioning effectively.

But unforeseen trouble can be developing—trouble that easily could be avoided by scheduled periodic inspection, cleaning, and maintenance. Preventive maintenance has been too profitable from a productive-machinery standpoint to be overlooked as part of day-by-day operation of electrical systems.

Many mills are devoting considerable attention to their electrical systems and are obtaining splendid results by modernizing substations, switchboards, and circuits. Voltage regulators, transformers, switchgears, and internal plant-distribution systems have been revamped to insure maintenance of proper voltage. Overloading of circuits is being carefully watched as a critical point. Automatic controls and circuit breakers have gained in popularity with good results.

As the installation of electrical apparatus and equipment increases, so does the importance of periodic inspection of the electrical system.

Controls operate hundreds of times daily, in some cases thousands of times. It is important that they be inspected regularly and repairs be made when necessary. Spare parts enable quick repairs and prevent production delays.

Here, in the accompanying article, are some of the routines followed by one mill to keep its electrical system in good working order.

POWER CIRCUITS Get "Stitch-in-Time" Maintenance

AIM—Non-interrupted production

PROBLEM—In-plant power failures

SOLUTION—"Fix 'em before they happen"

By E. DALTON WHITE, McGraw-Hill Atlanta Bureau

PERIODIC INSPECTION and a preventive-maintenance program are providing Dundee Mills and its Lowell Bleachery South, Griffin, Ga., with relatively trouble-free operation of its electrical system. Scheduled inspection, maintenance, and repair are timed to coincide with mechanical repairs and temporary shutdowns to minimize interference with production.

Before the system was developed for the mill's spinning, weaving, and finishing operations, power failures occurred at times when production was most needed. Now, possible trouble is anticipated and unscheduled shutdowns are rare.

Plants Work Under Coordinated Control

Operation of several plants in the Griffin area has the advantage of over-all control and the exchange of information and experience between the several plants. Coordination of operations and spare equipment for the plants provides insurance against extended delays in repairs.

Efforts are made to standardize as much as possible in order to reduce the number of expensive spare units carried in stock. Power rating of all the equipment is greater than present needs to allow for expansion and possible overloads.

In formulating its inspection and maintenance program, Dundee established a system that would meet individual-plan operations yet provide for over-all control. Each plant has its own electrical department, but it can call on other plants for assistance in any emergency. The primary objective is to keep production equipment operating at all times. A power failure at any one of the mills affects, to a certain extent, over-all operations. Thus, it is important that a constant flow of electric power from the substation through the in-plant distribution system be maintained.

The best time to thoroughly inspect, adjust, and repair individual electrical apparatus and equipment is during temporary shutdowns of processing lines. At Dundee Mills, the production department notifies the electrical department when processing lines are to be shut down so that all electrical equipment can be checked at that time.

Switchgear

Twice each year, during the first week in July and at the Christmas holidays, Dundee makes a thorough inspection of all electrical equipment. All outside substations are checked for the condition of steel framework, lightning arrestors, and oil levels for condensate in the transformers. A major inspection is likely to result in all structures and equipment being painted.

Once a year, oil samples are taken for a high-potential test. If sludge appears, the core and tank are thoroughly cleaned and the oil changed. This practice helps prevent a breakdown if a power surge occurs.

It is highly important that a clean container be used for the oil sample. The bottle should be carefully cleansed with detergent and soap, washed clean,

✳ most any product in most any industry can be made better with

DOWICIDE "A"

Dowicide® A is water soluble and is, therefore, easily added to water extended adhesive solutions giving them protection from decomposition caused by mold and bacterial attacks.

Dowicide A is used effectively to disinfect contaminated walls before the application of a mold resistant paint. Water extensible paints are preserved with Dowicide A.

Dowicide A is used to disinfect buildings, egg storage rooms, and poultry feeding stations. When used in the wax emulsion coating, it protects citrus fruits from blue mold and stem-end rot.

In the paper industry, Dowicide A is used to protect paper sizing and coating solutions from mold and bacterial attack, both during use and storage.

Dowicide A protects soluble oil emulsions from bacterial decomposition and the accompanying unpleasant odors, emulsion breakdown, and the clogging of screens.

Rayon or silk thread in storage is protected against mildew by the addition of Dowicide A. It is also used to preserve protein, animal glue, casein and starch sizing solutions.

Water solutions of Dowicide A are used as disinfectants and germicides in public buildings and homes, and as a deodorant in and around garbage cans and chemical toilets.

Dowicide A prevents mold and bacterial growth during many stages of leather processing. It is also used to protect coating and finishing materials from costly bacterial attacks.

MAKE your own tests today! We believe you will find even more new uses for Dowicide A. If you are confronted with a specific problem, make use of Dow's complete laboratory facilities—write for information concerning the many different Dowicide products, including Dow's PENTA, the dependable wood preservative.

THE DOW CHEMICAL COMPANY • MIDLAND, MICHIGAN

The Dow Chemical Company
Dowicide Department DC-84, Midland, Michigan
Please send me the Dowicide Product Information File.

Name _____ Title _____

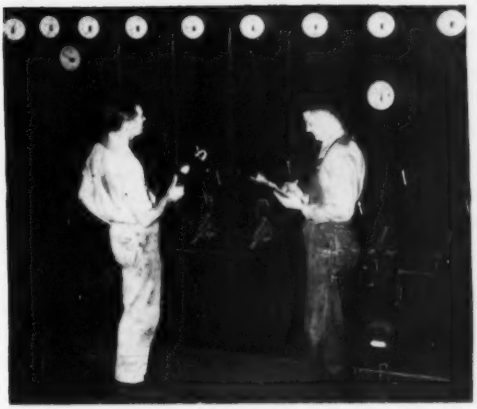
Company _____

Street _____

City _____ State _____

I am interested in using Dowicide Products for _____

DOW
CHEMICALS
INDISPENSABLE TO INDUSTRY AND AGRICULTURE



SWITCHBOARDS ARE INSPECTED regularly, and voltage is checked with an ammeter to spot excessive variation. Breakers, switches, and meters get daily visual inspection and periodic tests.

FUSE BOXES are kept free of dust, grease, and moist lint by periodic inspection and cleaning. Fuses are inspected, bad contacts are removed, and contact surfaces are polished.

CONTACT BRUSHES are checked regularly. Repairs, except rewinding, are done at the mill. When rewinding is necessary, outside specialists are given the job.

AUTOMATIC MOTOR RHEOSTATS make it possible to get low starting voltages on heavy production equipment. Parts are inspected and repaired when processing equipment is not running.

and dried. An extremely small amount of moisture can ruin an oil sample, and a bad oil sample will ruin a dielectric test.

In taking the oil sample, a small amount of oil should be allowed to run from the sampling valve before the sample is drawn so that any accumulation at the valve will not be included in the sample.

Bus Bars

Bus bars and connection bars should be examined for overheating so that the trouble, if any, can be located and corrected immediately. Poor or loose connections, or additional loads, are possible causes of overheating. Shifting load to other feeders might be desirable.

Switchgear

At least once each year a general check and inspection is made of all switchgear equipment at Dundee. This inspection includes switchboards, which, with their component parts, are cleaned regularly and kept free of dust.

Air and power circuit breakers, relays, and switches are given special attention for proper contacts. While this equipment is relatively free from trouble, precaution is taken to catch any possible trouble before it develops.

The monthly inspection of switchboards includes checking of all breakers and switches for proper operation. Both during monthly and general yearly inspections, close attention is given to contacts. Replacements are made when necessary.

Oil circuit breakers can give a lot of trouble just at the time when you don't want it. It has been found that periodic inspection, cleaning, and oil change—with repair and replacement of parts when necessary—will prevent a power failure.

Circuits

To maintain proper voltage, all circuits from the main switchboard are checked with ammeters to detect any swings from normal variation. There is some drop in voltage within the plant, but Dundee Mills tries to keep this drop within controllable limits by maintaining an average of 565 to

(Continued on page 278)

For Sanforized fabrics don't settle for less:

Twitchell 7250 Oil gives you *all three advantages in one!*

SUPERIOR FIBER LUBRICATION . . . provides easy and uniform rearrangement of fibers during fabric pre-shrinking, assuring more uniform goods . . . eliminates sticking at the shoes.

FASTEST REWETTING . . . through high speed, uniform rewetting, you get increased production efficiency. For example, treating a 6 oz. untreated duck with a 3% solution of Twitchell 7250 reduces rewetting time from *5-10 minutes to only 15.2 seconds!* Rewetting ability is not affected by prolonged aging on fabrics or by finishing agents.

SOFT HAND . . . enables you to save on other finishing agents normally needed. In many cases Twitchell 7250 provides *all* the necessary softness.

In addition, this oil resists staining, yellowing, oxidation and rancidity . . . gives you the best rewetting buy on the market today. Save time, money . . . buy Twitchell 7250 today.

For a recommendation to fit your particular need, contact our Development and Service Department.

Other Twitchell Oils for other requirements. Select the one that best suits your conditions.

PRODUCT	FIBER LUBRICATION	REWETTING	SOFTNESS	STAINING
Twitchell 7250	Very Good	Fastest	Softest	None
Twitchell 7240	Excellent	Fast	Moderate	None
Twitchell 7231	Excellent	Medium	Slight	None

Emery

Fatty Acids & Derivatives
Plastolein Plasticizers
Twitchell Textile Oils

EMERY INDUSTRIES, INC.
Carew Tower, Cincinnati 2, Ohio

BRANCH OFFICES:
3002 Woolworth Bldg., New York 7, N. Y.
401 N. Broad St., Philadelphia 8, Pa.
187 Perry St., Lowell, Mass.
221 N. LaSalle St., Chicago 1, Ill.
420 Market St., San Francisco 11, Calif.
Export: 5035 RCA Bldg., New York 20, N. Y.
Warehouse stocks also in St. Louis, Buffalo, Baltimore and Los Angeles

What Causes PUMP Failure?

MILL Maintenance MANUAL

▶ Pumps are simple—but a mill can't run without them. Here is a checklist for maintenance of duplex-type pumps that will help prevent pump failure.

BECAUSE DIRECT-ACTING PUMPS are simple, especially the smaller sizes, they usually receive little attention until they show signs of weakness or fail completely. Where a pump is used in an important service—such as supplying water for a mill, boiler, or condenser—it is foolish to run it as long as it will go without inspection.

When two pumps are used for the same service, periodic inspection is not absolutely necessary, although it is highly desirable. The work involved and the frequency of inspection will depend on how hard the pump is worked (the speed, pressure of steam and water, character of water, and the number of hours the pump is in service each day). The more unfavorable these conditions, the oftener the pump should be examined.

The program outlined here applies to a duplex steam pump. This type of pump has been replaced to considerable extent by the centrifugal-type pump, but many are still manufactured and in service today.

After inspecting a pump a few times, an engineer can tell about how long it should run before being looked over again. Packing, rods, and stuffing boxes should be examined at least once a month.

Check Water End of Pump

Internal examination procedure should be to remove the water cylinder heads and examine the gaskets.

Remove the plunger or plungers, and note whether the nuts come off easily or hard.

Examine the piston packing; and if it looks rough or feels soft, replace it. If packing does not last long, check the cylinder for scoring or out-of-round. If the shape of the cylinder is distorted, rebore it or install a new liner.

Clean the ports as far as they can be reached from the cylinder.

Examine the shoulder on the piston rod to see that it is square; if not, the piston could work loose.

When assembling piston or rod, prick-punch the rod nut so that the nut cannot come off.

Remove the discharge-valve cover and valve deck, if it is a small pump, or the hand-hole plates if it is a large pump; and examine the valves. Raise each valve by hand to see that it works freely and is not likely to stick. If valves are too loose, cramping on the stud could be a source of trouble.

Feel the underside of the valves to see whether they are worn or cut enough to warrant reversing or renewal.

When the valves are raised, check the spring tension and the studs and valve seats for wear. Examine the ports to make sure they are clear.

Prick-punch valve-stud nuts to prevent the nuts from working loose.

Examine suction valves in the same manner.

Examine the piston rod and remove the packing. If the packing is hard, put in new packing. If it is in good condition, apply graphite and oil and install it in the box. Screw the gland nuts up lightly.

After the pistons are put back in, replace any gaskets that appear hard and brittle; then replace the covers.

Examine the stuffing box on the suction-line valve, if there is one, and replace the packing or graphite present. Pack and tighten the gland. (If the stuffing box is overlooked, the chances are it will soon leak air and break the suction. In most cases, it would probably be the last place looked at when a search is made for the cause of suction loss.)

Check the Steam Chest

Remove the steam-chest cover and the cylinder head. Push the piston or pistons to the back of the cylinder and examine the cylinder walls for evidence of scoring caused by grit from scale or rust in the steam pipe.

If this condition exists, remove the pistons and cylinders and clean them. Smear the surfaces with cylinder oil.

Examine rod shoulders, replace the pistons, and prick-punch the rod nuts.

Examine head gaskets, apply graphite, and put on the cylinder heads. If scale or rust are found, disconnect the steam pipe and blow it out.

Examine the steam valves and seats for scoring and for shoulders.

Check port openings by moving the steam valves to the extreme ends of their travel.

Check the valves for lost motion and the jam nuts on the valve stems to make sure they are tight.

Properly oil all surfaces.

Check the stuffing-box glands on the piston rods and valve stems.

Renew the packing, if necessary, or graphite the present packing.

Clean the box, gland, and screw threads before the packing is replaced. Put on covers, with new gaskets if necessary, and fill the lubricator.

Move the crosshead off-center, open the cylinder cocks, and the pump is ready for service.

What Causes Failure?

The troubles of pumps are numerous and varied. For this reason, a great deal of useless work is sometimes necessary in order to locate the cause of the trouble. But pump troubles can be avoided for years at a time if thorough inspection and maintenance are carried out at regular intervals.

GROANING. One of the most common disorders of duplex pumps in particular is groaning in the steam cylinders. If the pump is not exactly level, this fault will usually occur on one side as a result of insufficient lubrication; the steam flows to one side of the chest, and all of it passes through one cylinder, interfering with lubrication. Groaning may also be caused by grit in the steam cylinder; so it is well to examine the cylinders and pistons also.

POUNDING. Jerking of the pistons, usually accompanied by a pounding noise, is due to an insufficient supply of water. Lack of water may be caused by a number of things: a leak in the suction pipe; water entering the pump that is too hot; the suction line, ports, or valves partially plugged; suction valves that may stick on the studs; or a piston that may have worked loose on the rod.

One side of a duplex pump may run faster or make quicker strokes than the other as a result of stoppage of the water passages on the slow side, steam valve not admitting enough steam, a clogged steam or exhaust port, or too

(*Continued on page 272*)

How do you insure $746,200,000?

The whole textile industry would like to know the answers to that question...because they spent $746,200,000 on textile mill modernization last year!

While we don't have all the answers, here's one good way of insuring that part of the investment that was spent on machinery . . . and a very simple way, too! JUST ADOPT THE COMPLETE LINE OF CITIES SERVICE LUBRICANTS FOR YOUR OPERATION.

Cities Service Lubricants...specifically designed for the textile industry...are top insurance against costly wear and parts failure. With these quality products you're assured of cleaner machine bearings and shafts, and cleaner finished goods, too. With them you can keep friction, due to gumming and power load, down to the barest minimum . . . KEEP PRODUCTION AT MAXIMUM.

Why not use Cities Service as the single dependable source for lubricants exactly suited to your operation? Test them by turning over your most stubborn lubricating problem to a Cities Service Lubrication Engineer. He wants to help you. He can help you. Simply write CITIES SERVICE OIL COMPANY, Dept. D-38, Sixty Wall Tower, New York City 5.

CITIES SERVICE

QUALITY PETROLEUM PRODUCTS

For more information, write direct or use Reader Service post card.

Pointers FOR SUPERVISORS

How the Management Team Can Build Better Human Relations

A Supervisor Tells The Personnel Experts

▶ Thousands of personnel experts are always ready to tell supervisors what's wrong with their human relations and how to improve them. This time our guest author, who prefers to be anonymous, pulls a switch and tells the personnel experts what could be wrong with their own human relations.

▶ What he says will not apply to all personnel departments, and not everybody will wholly endorse his philosophy. But what he says may help to improve the very important relationship between the supervisor and the personnel department. Whether you agree with him or not, he feels that if the article stimulates discussion about the relationship he has been of help.

THIS HAS BECOME A WORLD of experts—and perhaps that is how things should be. But when it comes to personnel relations, the story may have to be a bit different.

In each company there are experts who specialize in making the product, others who specialize in selling it, and still others charged with handling the necessary money matters. But when it comes to personnel relations, each supervisor in the company must be an expert. He must become a personnel expert irrespective of his expertness in manufacturing, selling, or finance. It is a mistake to believe personnel relations are the sole responsibility of the personnel department.

When it comes to the maintenance of machines, it may be possible to assign a special group of maintenance experts to the job. But the servicing of employees, because of the day-to-day relationship of the supervisor to his workmen and because of many other factors, cannot be turned over lock, stock, and barrel to some other department.

The Supervisor Runs the Show

The supervisor is responsible for getting out the work. And work can't be turned out without people. Thus, it is the responsibility of the supervisor to develop personnel relationships that will assure maximum efficiency in his department.

But a difficulty with many a personnel department is its feeling that it is the custodian of the company's personnel relationships. Closely related is a concept that the personnel department has all the answers—if only the supervisor would listen. It may be true that personnel has all the answers, but unless the supervisor in his own mind is convinced that these answers are the right ones, the company will flunk out in its personnel relations. All the expertness congregated in the personnel department will not be worth a nickel to the company unless it is bought wholeheartedly by the supervisor—and unless he uses it.

Personnel Should Help

It is the job of the personnel department to help the supervisor become an expert, and not to run his department for him. Its job is to help *him* run his department. There's a big difference. Moreover, when personnel has helped him, the supervisor should be given the glory and the credit—whether or not the personnel department thinks he is entitled to it. When the supervisor makes a decision, his job is on the block; and if he acts inadvisedly, he takes the blame. Therefore, he should get the credit when there's any to be given out. Too many otherwise happy relationships between the personnel department and the supervisor are broken up by the question of who gets the credit.

The personnel department is a consulting agency, a giver of advice. It acts much like the lawyer. The lawyer can explain the law and relate the consequences of his client's violation, but the decision as to what to do—the risk and the gain—is still the prerogative of the client. And so in a company the personnel department might furnish the manufacturing division with its opinion as to handling a problem involving personnel; it's still up to manufacturing to make the decision. Personnel is within its rights when it offers and argues its point of view, and it is entitled to an exceptionally attentive audience. Furthermore, it can go one step further than the lawyer. The lawyer is not allowed to give an opinion unless requested; but it is the positive responsiblity of the personnel department to furnish its opinion upon personnel matters, even when not called in.

Advise, Don't Insist

This responsibility of personnel to furnish its opinion —to offer help—often gets it into trouble. Too many supervisors resent the intrusion. They shouldn't. On the other hand, too many personnel decisions are made each day for the personnel department to handle conveniently. Although the personnel department has the responsibility of looking into personnel situations that may require help, it must carefully select its shots. You don't mind it much if your better half reminds you once or twice of a bad habit. She's helpful if she does. But if she continually reminds you of your delinquency, she becomes a nagging old woman. This is a trap that many personnel departments fall into easily.

If personnel's job is merely to help, not to make decisions; if others are to get the credit; if personnel cannot run the show—then in the business family, personnel would appear to be a poor relation. And perhaps that is exactly what the facts are. That's why the personnel job is one of the toughest jobs in the company. Personnel has to "sell" its programs; it can't "insist" upon them.

(*Continued on page 198*)

Cook P&N

continuous bleach range

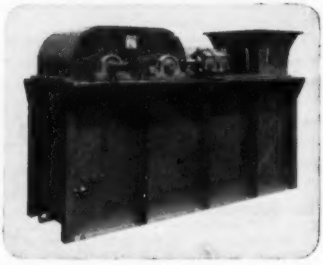
SELF-SUPPORTING J-box

Continuous Bleaching now plays a major role in the preparation of cotton piece goods. The COOK J Box has contributed in no small measure to this development.

Introduced only a short time ago, the COOK *self-supporting all stainless steel* J Box met with instant approval and is regarded by those who have it as outstanding in its field. Not only does it save floor space and provide greater accessibility but eliminates the usual structural steel supports which in the bleach house atmosphere of acid fumes do not stand up well.

Complete ranges are furnished with either the Becco or DuPont type J-boxes of any width and number of sections to fit your needs in either rope or open type processing.

All COOK machinery is fabricated in our own shops allowing design flexibility *without* premium cost. Stainless steel fabrication eliminates broken castings and factory-made repair parts. All machines are guaranteed to perform as specified. Your request for information will receive prompt attention.

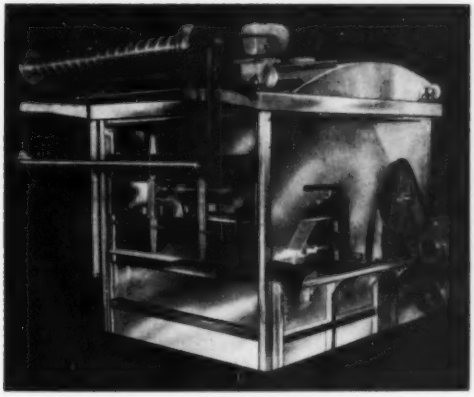


COOK Saturator 3106-2 gives a uniform and thorough saturation. May be mounted inside J-box radius if available space is limited. Has self-supporting stainless steel tank. Squeeze rolls horizontally arranged, mounted in self-aligning anti-friction bearings and pneumatically pressured leave the correct amount of solution in goods for complete action in J-box. Rolls totally enclosed to prevent splash and accidents.

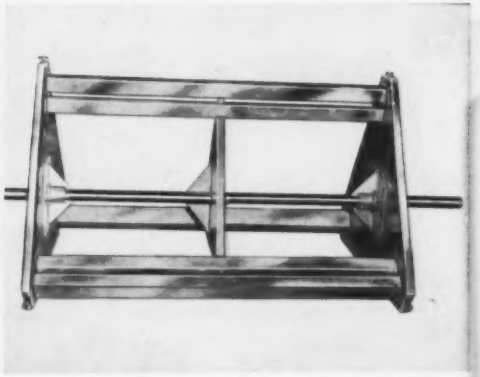
COOK-P & N MACHINE CO., INC., 365 Dorchester Ave., Boston 27, Mass.

TEXTILE Equipment NEWS

Open-Width Dye Kettle Has New Design Features



A SEPARATE GEAR MOTOR that drives the delivery roll and folder unit is one of several new features incorporated in this dye kettle.



TILTING BARS on this triangular reel are supported by swivel at the center. Either end can slope in the opposite direction should cloth work toward one end of the reel, and thus cloth is kept centered.

A new open-width piece-dye kettle primarily for dyeing pile fabrics and other face-finish goods in open width plus other types of goods in rope form has been developed by James Hunter Machine Co., North Adams, Mass. Several of these kettles are now in successful operation in a large Pennsylvania mill.

The tank conforms to standard Hunter construction of 11-gauge, Type-316 stainless steel with seams welded both inside and out. The safety-type enclosure doors slide downward below the floor line. Steam will escape from the top as they begin to open; thus the operator is protected from burns that might occur if the doors opened upward.

Included as standard equipment are a Bakelite spreader bar to keep out wrinkles when open-width goods are run, a built-in pin guide rail for goods in rope form, a spiral delivery roll, and a folder unit with stainless-steel draw rolls driven by separate gear motor that may be run only when unloading to eliminate the usual belts or chains from delivery roll to main reel shaft. The gear-motor drive has three easily changed speeds.

A special feature of this dye kettle is a unique triangular reel with three tilting bars for supporting the goods. Supported at their centers by a swivel mounting, either end of the bars tend to slope in the opposite direction should the cloth work towards one end of the reel, and thus the cloth is kept centered.

Extra equipment includes dye feeds, automatic controls, exhaust systems, and other extras normally used for piece-dye kettles.

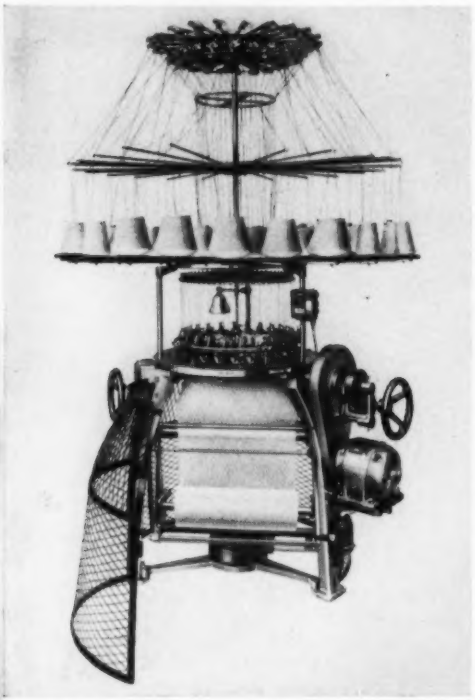
Sizing Control Developed at Shirley Institute

A new warp-sizing regulator, said to control most or all of the variables present in slashing, has been developed at British Cotton Industries Research Assn., Shirley Institute, Manchester, England. By use of the regulator, the report states, warps can be sized to any desired percentage by setting a pointer on a dial.

The regulator is said to detect and compensate for variations in the sizing operation continuously and automatically. It is said to compensate for variations in lots of starch, in viscosities of various batches, in amount of condensate in the size box, in size-take-up properties of the yarn, in pressure of squeeze rolls, in speed of running, etc.

No details were immediately available as to the construction, operation, or availability of the regulator. These details will be reported in future issues of TEXTILE WORLD as they become available.

Knitting Machine Produces Open-Stitched Fabrics



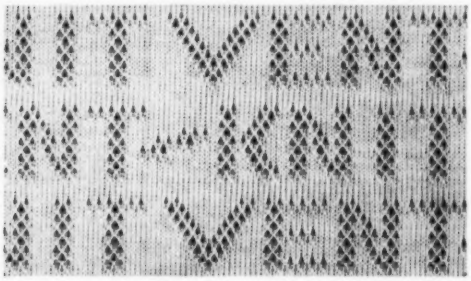
UNIQUE ARRANGEMENT of cams, sinkers, and pattern wheels on this new Model-LRP machine produces open-stitched fabric for summer wear or underwear.

"Vent-Knit" circular-knit fabric with a latticework of stitches that forms a series of air vents can be made on the new Model-LRP knitting machine available from Supreme Knitting Machine Co., 105 Johnson Ave., Brooklyn, N. Y. The machine will be shown at the forthcoming Knitting and Allied Crafts Exposition, to be held in New York this month.

The LRP machine produces summer-wear or underwear fabric with air-cooling, open-stitched areas in a plain-jersey background. The open areas can be formed in a wide variety of patterns. "Vent-Knit" fabric is said to be strong, full-bodied, run-resistant, and elastic.

The open fabric can be produced on the LRP machine at rates up to 28 yd. per. hr.

The machine has all standard features of Supreme machines. These features include: stationary yarn stands; revolving, floating take-up; silent-chain and unit-motor drive; and tripod construction. Various diameters, cylinder cuts, and feeds are available.

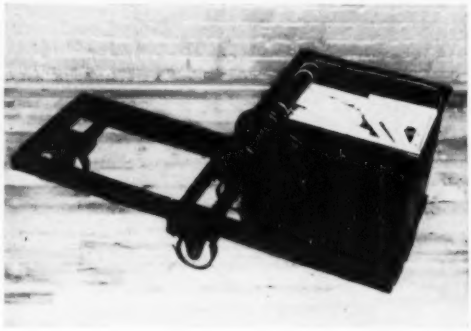


THIS "VENT-KNIT" PATTERN is typical of the air-cooled fabrics that can be produced on the new LRP machine. The fabric is said to be strong and full-bodied.

All-Metal Truck for Spinning Doffers Has False Bottom

A false-bottomed doffer's truck that eliminates a lot of bending on the part of the doffer has been developed by W. T. Lane & Bros., Poughkeepsie, N.Y. A wire cable attached to all four corners of the false bottom raises the bobbin level when the doffer turns the raising wheel. Ratchet-held, the bottom falls back with a single motion for refilling when the holding pawl is released.

The new all-metal truck costs only about 25% more than conventional trucks.



IN MILL USE, doffers say that this new truck makes their job lots easier. Hand wheel controls bobbin level.

Instrument Pen Eliminates Flooding and Choking

New industrial instrument pens that eliminate flooding and reduce paper plugging and choking have been designed by Minneapolis-Honeywell Regulator Co., Brown Instruments Div., Wayne & Windrim Aves., Philadelphia 44, Pa., for their strip-chart electronic instruments.

The new pens have removable tips and a new reservoir construction that eliminates flooding because the effective ink level always remains below the writing tip of the pen.

Among other advantages are: The pen operates with decreased pressure on the instrument chart, tending to reduce paper-fiber choking; thorough cleaning is made easy by a simple disassembly; and the new design fits on standard pen carriages, permitting improved performance for already installed instruments.

SONOCO

Makes PAPER TUBES for every Textile need

YARN TUBES

Range of sizes—I. D. ¼" to 2" length ⅛" to 13"

—for yarn, thread, twine or cord in a choice of smooth, corrugated, embossed, velvet or Unitex finishes. Yarn tubes are also available in 12 colors of paper for identification. They can also be lacquered in colors on one or both ends, and scored and printed.

SONOCO'S vast tube making facilities can produce spiral, convolute, parallel or drawn tubes. Dimensions range from ¼" I. D. to 24" I. D. in lengths from ⅛" to 300" or more —any practical wall thickness. In colors, various surfaces and embossed, treated, perforated, or printed. All dimensions can be controlled to well within commercial limits of uniformity or, to precision accuracy if desired.

BALL WARP CORES

For use with SONOCO'S Aluminum Ball Warp Mandrel which produces a better warp. Also for conventional use. Cores are uniform—lightweight—returnable.

LOOM TUBES

A heavy duty reusable tube for winding cloth on the loom. Available in various lengths and inside diameters with wall thickness according to specifications. Rough or smooth outer surface, specially treated ends.

Other Textile Tube Specialties

- Straight Side Bobbins
- Cloth Tubes
- Roving Tubes
- Topping Roll Covers
- Underclearer Covers
- Tie-in Tubes
- Temple Roll Cores
- Mailing Tubes
- Loom Beam Repair Tubes

Precision Paper Products

If it's a paper tube Sonoco can make it

sonoco — SERVES THE TRADE — PAPER CARRIERS — REG. U.S. PAT. OFF.

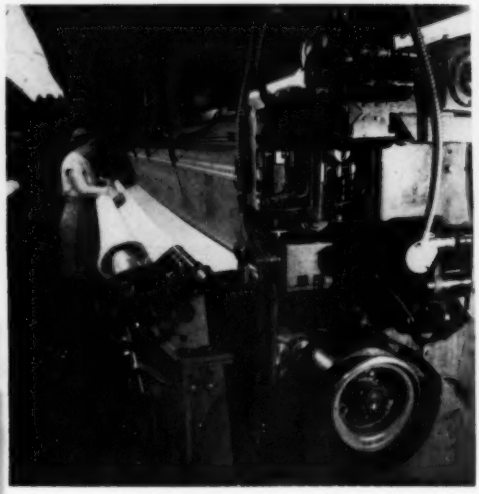
SONOCO PRODUCTS COMPANY

MYSTIC CONN. | HARTSVILLE S. C. | BRANTFORD ONT.

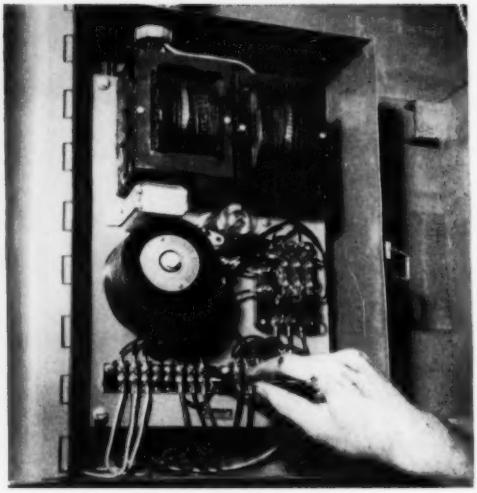
DEPENDABLE SOURCE OF SUPPLY

For more information, write direct or use Reader Service post card.

Electronic Tricot-Beam Let-Off Improves Fabric Quality



ELECTRONIC LET-OFF installed in one mill shows two tension switches that convert changes in warp tension to electrical impulses to operate the let-off motor.



LET-OFF UNIT (two required per machine) features simplicity of design and construction for ease of maintenance. One electronic tube is required per unit—two per machine.

A new beam let-off for tricot machines, made by Westinghouse Electric Corp., 306 Fourth Ave., Pittsburgh 30, Pa., is said to be producing better-quality fabric in one mill installation. The improved quality is said to be the result of consistently maintaining proper runner lengths and having the warp supplied to the knitting elements at a constant linear speed. Fabric shading is said to have been virtually eliminated.

These drives, Westinghouse Type BD, electronically control warp let-off so that the zero or mean position of the tension bar remains fixed. An increase in warp tension causes a change in position of the knitting-machine tension bar. This change in position is converted to an electrical impulse that, when amplified, operates a small a.c. motor geared to the beam. Operation of this motor releases the beam, maintaining proper tension.

A high gear ratio is provided between the motor and the beam so that, when the beam is nearly empty and the knitting machine is operating at normal speed, the beam motor runs at approximately 1,400 rpm., depending upon the runner lengths desired. A worm-gear drive is used so that tension on the warp cannot exert a driving force on the motor. The motor merely acts to release this tension by driving the worm gear at a speed such that the unwinding of the warp due to the tension exerted on it by the threads is just enough to maintain proper warp tension (constant average deflection of the tension-bar springs). Since the drive operates as a function of tension rather than speed, beam-diameter changes are compensated for.

As tension momentarily changes through the action of the knitting machine, a dancer contact on the tension bar opens and closes. This contact, connected to the low-energy grid of a single thyratron tube, triggers the power circuit of the beam motor. The fluttering action of the tension contacts gives rapid on-off control of the motor voltage. Thus, the motor operates at a speed to maintain proper tension.

When it is necessary to stop the knitting machine for any reason, a fast-acting dynamic braking system provides extremely rapid stopping, which, in conjunction with fast-acting dynamic braking on the main knitting-machine motor, keeps cloth marks at a minimum. A pulse of d.c. current is forced through the motor windings, stopping the motor in one or two revolutions.

1,000-W. Mercury Lamp Designed for Medium-Bay Areas

A new and highly efficient 1,000-w. mercury lamp for general industrial use where medium- or high-bay lighting is desired has been developed by the Lamp Dept., General Electric Co., Nela Park, Cleveland 12, Ohio.

Producing 52,000 lumens, or 52 lumens per watt, the lamp is the most efficient of GE's general-lighting mercury lamps in the mercury-lamp line. Its life rating is 3,000 hr. at 5 burning hr. per start, and 4,000 hr. at 10 burning hr. per start. It operates satisfactorily in any burning position.

The new light source was made to operate on 440 to 480 v. for highest efficiency. This voltage also makes it possible to operate the lamp with a simple, low-cost ballast.

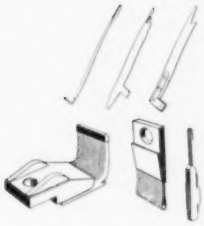
Designated the A15, the lamp has an over-all length of 14¼ in., and its heat-resistant outer bulb is 3¼ in. in diameter. Now in production, the lamp carries a list price of $50.

Dependable Service

You can count on outstanding service from every Textile Spring-Beard Needle. A special steel formula, superior tempering and scientific controls — automatic and electronic — make Textile Needles longer-lasting with exactly the right amount of strength needed to withstand every strain in knitting operations.

Dependable service is one of the many advantages you get in Textile Spring-Beard Needles. You get better performance, more even stitches, bigger profits.

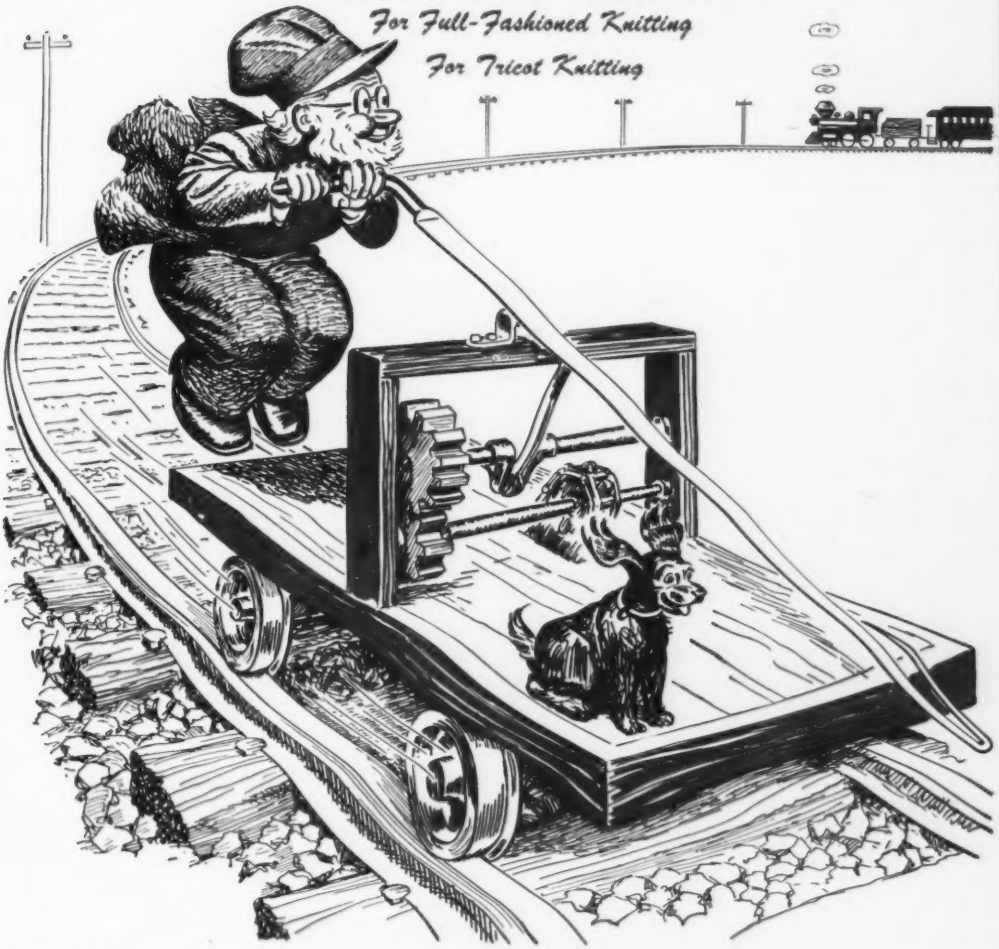
TEXTILE MACHINE WORKS, READING, PENNA.



Textile
SPRING-BEARD NEEDLES

For Full-Fashioned Knitting

For Tricot Knitting



For more information, write direct or use Reader Service post card.

Lab Dryer Maintains Precise Temperature and Humidity

PORTABLE DRYER that maintains preset temperatures up to 325° F. and proper humidity may be useful for textile-laboratory tests.

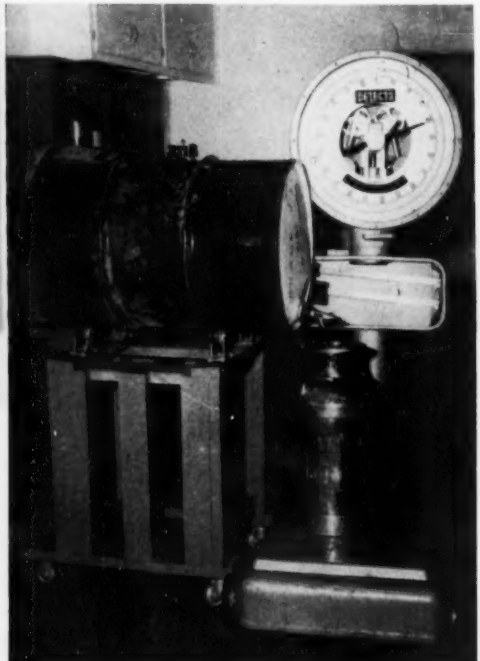
A new laboratory dryer said to incorporate the latest features of design and precise control of temperature and circulation has been developed by Denver Equipment Co., Denver, Colo.

The compact, inexpensive dryer operates on single-phase, 50 to 60-cycle, 110- or 220-v. a.c. It has an asbestos air-cell insulated oven that has a pair of standard, easily replaced heating elements. This insulation, combined with tight construction, keeps the heat in the dryer oven. Power consumption is low—less than 5¢ an hour.

Exact temperature is said to be maintained by a thermostat control that enables precise adjustments of temperature level up to 325° F. A sensitive stem thermometer is inserted into an opening in the top of the dryer to permit temperature readings without opening the doors.

Proper humidity and drying conditions are maintained with a forced-air circulating damper on the back of the dryer. It has three stages of adjustment. The fan is driven by a motor mounted outside the dryer—away from high heat. Air is forced in and circulates over the elements. Moisture-laden air is discharged through specially located exhaust ports. An exhaust adapter is provided that can be connected to a 3-in. stove pipe so fumes are kept out of the room.

Drum Roller Permits Easy Agitation of Fluids



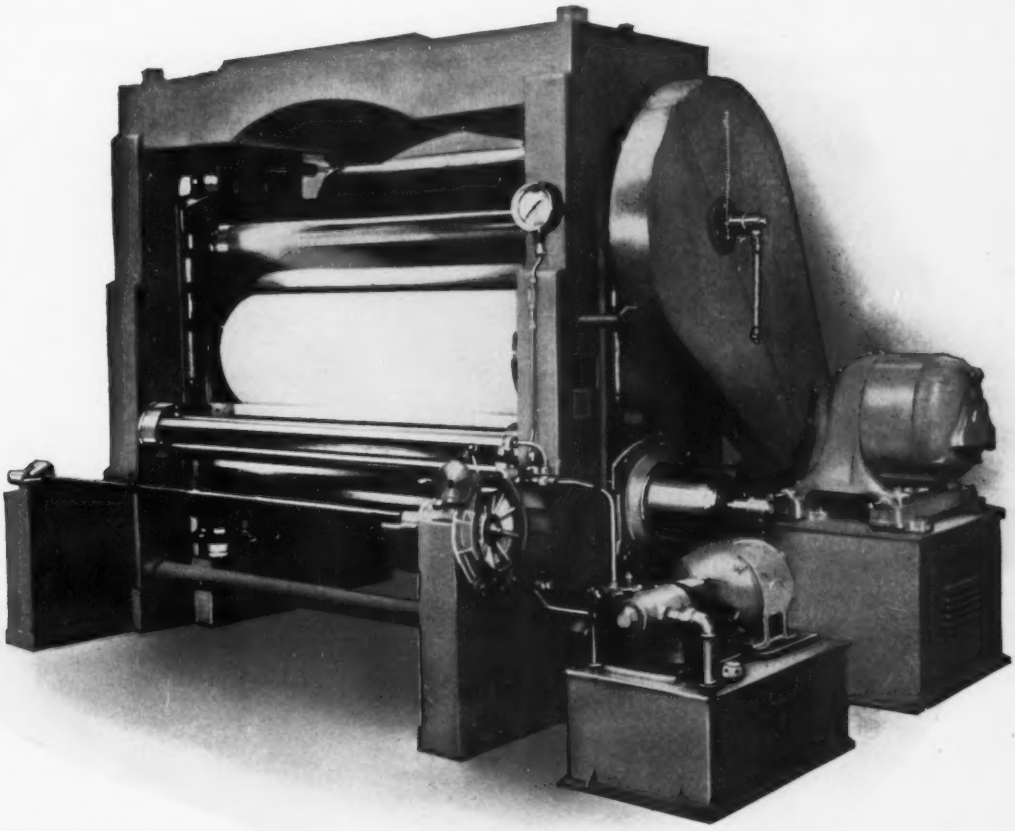
AGITATION OF FLUIDS in drums is easy with this new drum carrier and roller made by McKinney Wood Products Co., P. O. Box 249, Canton, Ga. Agitation is done by rotating the drum on rubber-wheel casters mounted on a wooden frame or dolly.

Floor-Patch Material Contains No Stone or Aggregates

DASCO REDI-PATCH, a new, fast-setting floor-patch material said to be the only material of its kind to contain metallics and pure-rubber latex is available from Dasco Co., Inc., 1602 Thames St., Baltimore 31, Md. The new filler is said to have a strength about 250% greater than ordinary floor-patch materials.

Dasco Redi-Patch can be applied to damp or dry concrete, asphalt, brick, or mastic floor by a single handyman. The hole is simply swept clean and a primer brushed into it. After the primer has set a few moments, Redi-Patch is taken from the drum and tamped level. No plasticizer is required. Within 5 to 10 min. after tamping, truckloads up to 20 tons may be driven over the patched areas without fear of powdering, rolling out, or releasing in any way. Redi-Patch contains no stone or similar aggregates.

TEXTILE *Equipment* NEWS



RUGGED DEPENDABILITY

Nowhere does massive sturdiness pay off in satisfaction more than in a heavy-duty calender. The V.V. 80 Ton Hydraulic Calender is well known to the trade for its rugged dependability. Here's why:

In design, workmanship and materials nothing has been overlooked. Heavy cast, box section frames are connected to cast iron and steel cross girts with close fitting, machined faces. Bearing guide slides for calender roll are machined for correct working surface.

Top and bottom rolls are chilled iron 16″ and 20″ in diameter—turned, ground and polished. Both are bored with chambers for steam heating. Intermediate roll, 22″ in diameter, is of selected, seasoned and bonded cotton, pressed on hammer-forged steel shaft with hammer-forged steel heads.

Bearings are heavy duty, spherical, roller type.

Lubrication is by a circulating oil system, giving a continuous flow from reservoir through bearings to pump and filtering unit, back to reservoir.

New design, using piston rings instead of packing, eliminates down time for repacking. Piston diameter has been enlarged to maintain 80 ton nip pressure with only 770 pounds per square inch oil pressure instead of 2000 pounds as previously required.

Totally enclosed, two stage hydraulic pump is directly connected to motor. Extremely large self-aligning spherical roller bearings mean a great saving of power, enabling a 25 h.p. motor to supply ample power to drive the machine at 75 yards per minute. Standard widths are 65″ and 70″.

VAN VLAANDEREN

You are invited to see this machine.

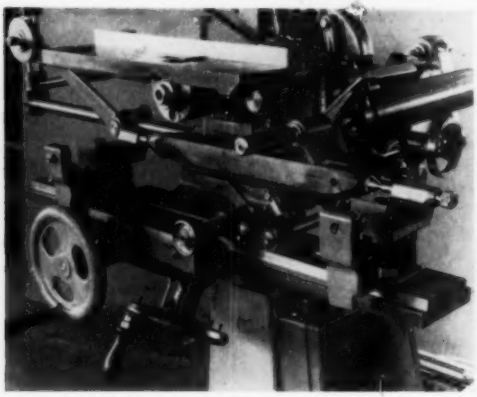
MACHINE COMPANY

370 Straight Street, Paterson 3, New Jersey

Cable address: VLAANDEREN, Patersonnj, U. S. A.

World's largest manufacturer of machines for processing modern fabrics

For Trueing Shuttles to Same Size . . .



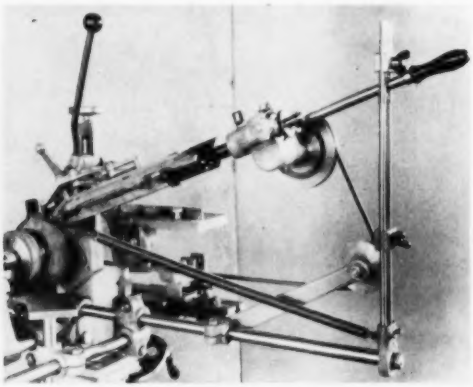
Try This New Machine . . .

A new machine for trueing shuttles to the same size with equal angles and equal height of shuttle points is available from H. J. Theiler Corp., Whitinsville, Mass. The machine, made by Staubli Bros. of Switzerland, is said to be essential to good operation of box-type looms. The machine can handle shuttles up to a maximum size of 22½x2¾x2⅝ in.

Operations that can be carried out by the machine are listed as follows:

1. Dimensions all shuttles accurately and alike.

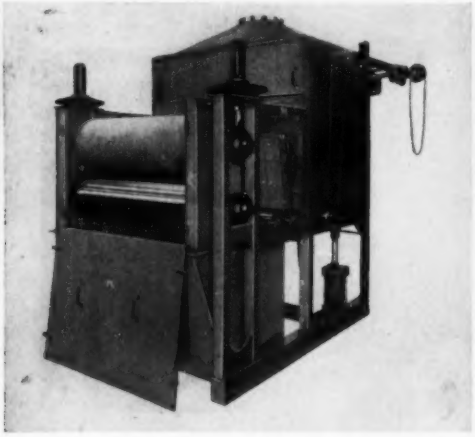
And for Grinding Points to Original Taper...



2. Grinds and polishes shuttle points to exact taper.
3. Equalizes angles and thickness of shuttle and height of shuttle points.
4. Mills shuttle sides to smooth new surface.
5. Cuts grooves and slots into shuttles, shuttle-box fronts, and reed frames.
6. Machines wooden fronts and backs of shuttle boxes.
7. Resharpens cutter knives without their removal from the cutter.
8. Can be used for planing, drilling, and polishing in general.

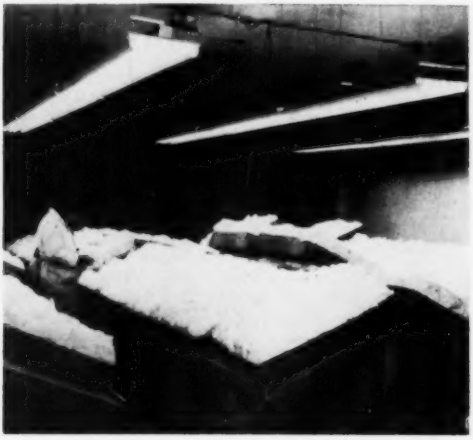
The machine can also be used for trueing of bobbins and turning them to a true round shape.

Vertical Singer Runs at 350 Yd. per Min.



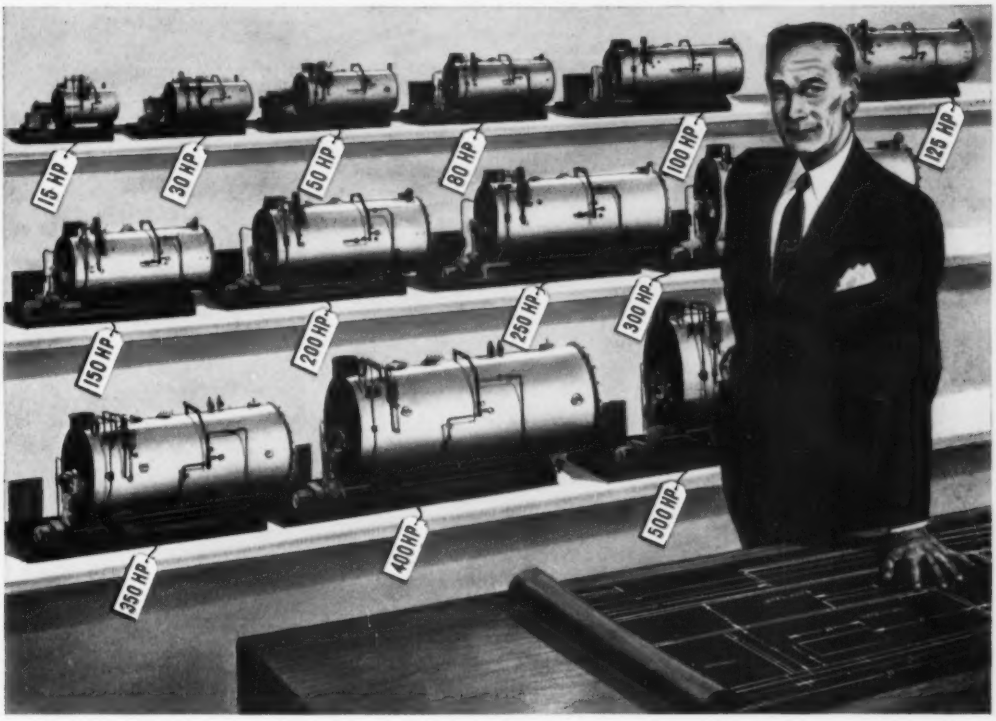
NEW VERTICAL SINGEING MACHINE that incorporates an automatic knock-off that functions quickly if the cloth breaks or burns has been developed by Cook P & N Machine Co., 364 Dorchester Ave., Boston, Mass. When the machine is stopped, the cloth is automatically taken off the burners. The wet-out section is equipped with pneumatic pressure and stainless-steel and rubber-covered rolls.

Lighting Unit Blends Colors To Produce Daylight



COTTON CLASSING is being done on the West Coast under a new lighting unit that uses colored fluorescent tubes to produce light said to be equal in color temperature (6,000° K.) to daylight. The unit, which uses standard slimline lamps, is made by John P. Filbert Co., Inc., 2007 S. Vermont Ave., Los Angeles 7, Calif. A desk-size laboratory color matching unit is also available.

Selecting The Right Boiler Is Most Important...

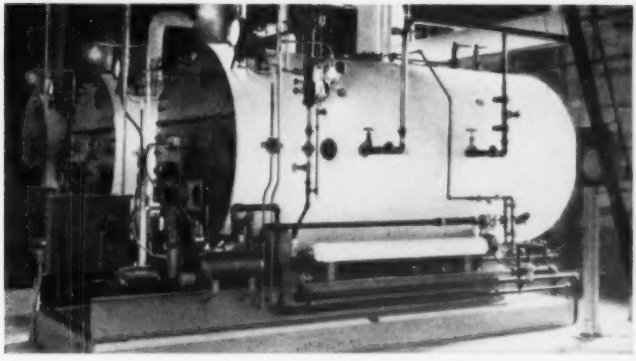


Cleaver-Brooks does not sell steam boilers "off the shelf" even though the boilers are available in standard models. Working with you, your engineers, and your consulting engineers Cleaver-Brooks helps analyze your particular steam needs and loads, both present and future.

These are a few of many factors considered: steam requirements in pounds per hour or b.h.p. — constant or fluctuating loads — fuels available — electric current characteristics — space and boiler room layout — provision for expansion.

Application engineering assistance of this kind assures you a steam plant tailored for your job. Cleaver-Brooks are the first and finest in modern, self-contained steam boilers — operate at a guaranteed efficiency of 80% — burn the fuel most available and economical in your area, gas, oil, or combination gas and oil — fully meet all codes — standard models available in sizes 15 to 500 hp; 15 to 250 p.s.i.

Write for latest, fully illustrated and descriptive Cleaver-Brooks Steam Boiler catalog.



Cleaver-Brooks
STEAM BOILERS

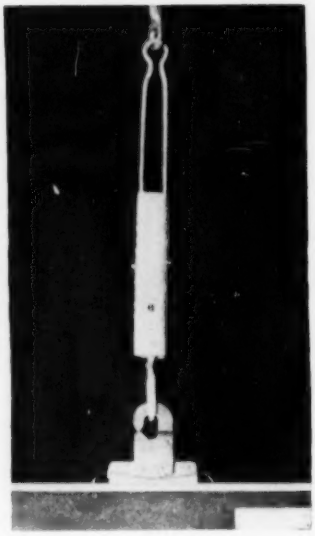
CLEAVER-BROOKS COMPANY
Dept. D, 368 E. Keefe Ave., Milwaukee 12, Wis., U.S.A.
Cable Address: Clebro-Milwaukeewis

Builders of Equipment for the Generation and Utilization of Heat • Steam Boilers • Oil and Bitumen Tank-Car Heaters • Distillation Equipment • Oil and Gas-Fired Conversion Burners

Eliminate Harness Cords With These Regulators

The headaches of broken, knotted, and stretchy harness cords can now be eliminated by use of a new metal harness-frame regulator available from H. J. Theiler Corp., Whitinsville, Mass. The regulators are made by Staubli Bros. of Switzerland.

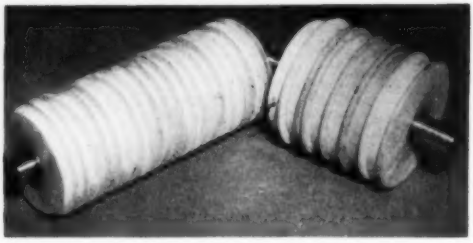
Construction of the regulators permits almost infinite adjustment of height of harnesses. A spring clip with prongs at the end snaps into holes on each side of the regulator. However, these prongs are staggered the distance of half a hole, as are the holes in the regulator itself. Thus, to obtain a length adjustment of half a hole, simply remove the clip, turn it around, and re-insert it.



PRONGS ON SPRING CLIP and holes in regulator provide almost infinite length adjustments for this harness regulator.

HALF-HOLE LENGTH ADJUSTMENTS can be obtained by turning the spring clip in the frame. Holes in frame and prongs on clip are staggered.

Package Replacement Unit for Sheaves Now Available



TIME-SAVING unit replacement of loom sheaves is possible with this new package replacement unit.

A new packaged repair unit for loom sheaves is now available from Wakefield Bearing Corp., Wakefield, Mass. The package is made up of the following items:

1. Woodex Sheaves made to mill specifications. These sheaves are of rock maple with oil-impregnated Woodex bushings.
2. Polished and ground steel shaft, fitted exactly with correct tolerances for maximum wear in smooth operation.
3. Steel washers and cotter pins when necessary.

Advantages of the new unit-replacement assembly are listed by the manufacturer as follows:

1. Smoother sheave operation.
2. Longer sheave life.
3. One responsibility for a number of items.
4. Reduce shop work at the mill.
5. Save loomfixer's time on assembly.
6. Reduces down time of loom.
7. Reduces seconds from fragments in the cloth.
8. Proper tolerances always maintained.
9. Tailor-made to meet the mill's specifications.
10. Lower inventory due to interchangeability of parts.
11. Reliability of sheaves proved by many tests and years of usage.
12. Removes chance of sheave damage due to reuse of worn shafts.

Cradle Permits Horizontal Storage of Drums, Barrels

NEW-STYLE CRADLE for use with fork trucks and for horizontal storage of drums and barrels has been developed by McKinney Wood Products Co., P. O. Box 249, Canton, Ga. One or two drums can be moved or placed in the tier at one time. Openings are provided to permit forks to enter for moving both barrels at one time.

Sturdy Gaylord Boxes

Deliver Your Product Safe and Sound

Manufacturers who know the sales value and economy of safer arrival of their products prefer Gaylord Boxes.

Tough enough to take the roughest kind of handling, these protective containers stand between your product and possible damage in shipping.

Ask the Gaylord Sales and Service office nearest you for proof of the advantages of Gaylord Boxes engineered to your specific needs.

It's the unseen quality that gives you the extra margin of safety in

Gaylord Boxes

GAYLORD CONTAINER CORPORATION

General Offices: ST. LOUIS

CORRUGATED AND SOLID FIBRE BOXES • FOLDING CARTONS • KRAFT BAGS AND SACKS • KRAFT PAPER AND SPECIALTIES

New York • Chicago • San Francisco • Atlanta • New Orleans • Jersey City • Seattle • Indianapolis • Houston • Los Angeles • Oakland • Minneapolis • Detroit • Columbus Fort Worth • Tampa • Dallas • Cincinnati • Des Moines • Oklahoma City • Portland • Greenville • St. Louis • San Antonio • Memphis • Kansas City • Bogalusa • Chattanooga Milwaukee • Weslaco • New Haven • Amarillo • Appleton • Hickory • Greensboro • Sumter • Jackson • Miami • Omaha • Mobile • Philadelphia • Little Rock • Charlotte • Cleveland

For more information, write direct or use Reader Service post card.

NEW Dyes AND Chemicals

Yellow Shades on Wool Have Good Fastness Properties

Supranol Yellow GGA Conc. CF, a straight, pyrazolone-azo acid developed by General Dyestuff Corp, 435 Hudson St., New York 14, N. Y., that gives medium-yellow shades on wool, is characterized especially by very good wet fastness and also good to very good fastness to light. As one of the Supranol series of dyestuffs that dye best from a weakly acid dyebath and yet draw very well from a neutral solution, this yellow is suitable for union dyeing, particularly for mixtures of spun rayon and wool.

The shades of Supranol Yellow GGA Conc. CF on wool are sufficiently green and bright to give clear pleasing self shades, but, more importantly, to give fairly bright, green, orange, and even scarlet mode shades. Good level-dyeing properties from a neutral bath permit its use advantageously for such combination shades where its very good wet fastness is desirable. As a result of its fastness and dyeing properties, including especially its good light fastness, this dyestuff is most suitable for dyeing wool in the form of stock and slubbing where very good wet fastness and light fastness are necessary for such end uses as hosiery and other knitting yarns and carpet yarns. Excellent fastness to acid milling permits use of this dyestuff on loose material for the hat trade.

Two New Dyestuffs For Acetate Announced

Two new dyestuffs for dyeing of acetate have been developed by General Dyestuff Corp., 435 Hudson St., New York 14, N. Y.

Celliton Fast Rubine BA-CF is a straight dispersed type of azo dyestuff offered for direct dyeing of bluish-red shades of superior light fastness on acetate. It is also suitable for dyeing nylon. A particular advantage of this dyestuff is its excellent dispersion and its freedom from a tendency to form tar.

The dyestuff, when used in full depths on acetate, produces rich ruby shades of very-good-to-excellent (6 to 7) fastness to light, very-good-to-excellent (4 to 5) fastness to sublimation, and very good (4) fastness to gas fading. These heavy dyeings display excellent (5) dischargeability. The soft, old-rose shades of light dyeings of this dyestuff also display better than average light fastness, the ratings for either sun or Fade-Ometer exposures being very good (6). Very-good-to-excellent fastness to rubbing according to the depth of the shade is also an advantage of dyeings of this product.

A medium rate of exhaustion and good affinity at high as well as at low temperatures, besides excellent penetrative properties, make this dyestuff suitable for application in either jig or reel. It is especially advantageous for penetrating acetate fabrics of tight construction or of highly twisted yarns, such as taffetas, bengalines, reps, crepes or romaines.

Celliton Fast Yellow GRA-CF is a well-dispersed azo dyestuff manufactured for the direct dyeing of dischargeable yellow shades on acetate fabrics.

The medium-yellow, bright shades obtained with this product are quite generally useful where self shades are required, the tone being distinctly redder than the shade of Celliton Fast Yellow GA and much greener than the golden yellow of Celliton Fast Yellow RRA. Very good affinity and good leveling properties at medium as well as at high temperatures make this dyestuff suitable for application in either jig or reel. These dyeing properties also permit use of this yellow in combination shades when a yellow component is required, especially for greens, grays, browns and tans.

The fastness properties of this yellow are in general very good, the fastness to light being good (5) to very good (6) according to the depth of the shade; the fastness to gas fading, sublimation, wet and dry hot pressing all being excellent (5); and the resistance to water and washing, good (3) to fair (2) according to the depth of the shade. An excellent (5) rating for dischargeability gives the dyestuff an important place on both knitted and woven constructions.

Brown Leuco Ester Best For Printing and Wool Dyeing

Algosol Brown IRRD Supra, a water-soluble leuco ester of the straight thioindigo vat dyestuff Indanthrene Brown RRA Extra Suprafix, has been announced by General Dyestuff Corp., 435 Hudson St., New York 14, N. Y. Like the dyestuff from which it has been derived, this Algosol is of first interest for printing reddish-brown shades of good tinctorial value on cotton, rayon, and silk with very good fastness properties. The dyestuff is also important for dyeing wool when very superior fastness is demanded, and for dyeing cotton, rayon and union piece goods when penetration and solidity of shade are of primary consideration.

Algosol Brown IRRD Supra is applicable for printing by either roller or screen methods to a great variety of fabrics made from either cellulosic or animal fibers to obtain good and very good fastness properties on cotton and rayon; and very good and excellent fastness properties on animal fibers. Both heavy and light prints of this brown on cellulosic fabrics are useful especially for washable materials, such as table cloths, cotton or rayon dress goods and shirtings. Heavy prints are sufficiently fast to light (6 to 7) to be used for draperies. Cottons printed with this algosol are suitable for plisse effects.

Although dyeings of Algosol Brown IRRD Supra are not satisfactorily dischargeable, this dyestuff can be readily resisted to give excellent whites when subsequently padded.

The fastness to light of dyeings of Algosol Brown IRRD Supra is very much better on wool than on cotton, the fastness in this instance for full shades being maximum (8) and for light shades excellent (7). The fastness to perspiration, water, and sea water are at the same time excellent (5) and the fastness to washing and fulling are very-good-to-excellent (4 to 5). Such excellent fastness properties permit the use of this dyestuff for woolen and worsted materials where the topmost fastness ratings are desired, as for example for shrink-resistant materials, which must withstand repeated washing. It is recommended also for the dyeing of wool in the form of stock, tops, yarn, or piece goods where the dyeing must withstand subsequent processing steps, such as stoving, bleaching, or fulling.

An important use of Algosols is their application by padding for the production of solid shades on unions, especially those containing wool and spun rayon. When unions are dyed from long liquor, on the other hand, cotton, rayon, and acetate are left practically clean. Nylon effect threads are heavily, and silk lightly dyed.

"Noraset," New Hydrophobic Resin Announced by Warwick

"Noraset," a new hydrophobic monomer resin, said to be capable of imparting durable water repellency; crease, spot, and stain resistance; and resistance to shrinkage when applied to practically all synthetics, was introduced by Sun Chemical Corp., 10th St. and 44th Ave., Long Island City 1, N. Y.

Ease of application, reproducibility of results, compatibility with softeners and U-F resins, and utilization of existing-type machinery are benefits claimed for the product.

It is also claimed that porosity of fabrics is not affected, and abrasion resistance is greatly aided by the resin application.

Two types of "Noraset," the "A" and "GG" types, are to be produced. "A" is the product that gives all the qualities claimed above; "GG" is primarily for water repellency and spot resistance.

PAGE-MADDEN COMPANY, INC.

WE MANUFACTURE FOR THE TEXTILE TRADE:
SUPERIOR PORCELAIN, ENAMEL GUIDES, GUIDE WIRES, CHROMIUM PLATED GUIDE WIRES, STAINLESS STEEL GUIDE WIRES, GLASS RODS & STRINGING, GLASS PITONS & INSETS SHUTTLE SPRINGS, SHUTTLE TENSIONS, BLEACHERY RINGS, CLEANER DEVICES

76-96 SECOND STREET • MINEOLA, N. Y.

ADDRESS ALL CORRESPONDENCE TO CORPORATION

"PAMACO"

TELEPHONES:
GARDEN CITY 7-2660
GARDEN CITY 7-2661

Attention
Mill Men

Pamaco-175, a special unglazed porcelain formula, will outlast and outwear any similar product--and we would like to send you samples to PROVE it. You can get Pamaco-175 in posts, tubes, solid rods, eyelets, rovers, and other designs. A sample or print of what you need, and quantity required, will help us quote you.

Pamaco tapered eyes, rovers, creel eyes, rollers and tension discs have been adopted as standard by leading makers of textile equipment.

Send data today and let us tell you how little it will cost to get better results with Pamaco unglazed porcelain.

Jesse J. Madden
President

Quotations subject to change without notice. All agreements are contingent upon strikes, accidents and other delays unavoidable or beyond our control. Charges made for Dies and Tools do not convey the right to remove them from our factory. If any material is proved defective it will be replaced but seller will not pay any claim for labor on or for damages by reason of the use of any materials delivered found defective or unfit for the purpose for which it is bought or sold. Goods shall be inspected when received and we are not liable for any defects unless we are notified thereof within 10 days after receipt by the buyer.

Exploring

The Textile Community

YMCA Recreation Centers Serve Many Textile Communities

▶ Mill interests have provided modern, well-equipped buildings that all residents of their towns use and enjoy. Community activities of all types center around "Y's," where fun and education are available for any age group.

By MILDRED BARNWELL ANDREWS

MILDRED ANDREWS

"I'LL MEET YOU at the 'Y'" is frequently heard these days in many textile towns. The growth of YMCA membership in textile communities has been greatly accelerated in recent years, and the "Y" is becoming the center of all types of community activities. The wholesome atmosphere generated through recreation planning and good management by the trained director now has great influence in the modern, attractively designed, and efficiently equipped buildings often provided by textile mill interests.

The largest YMCA membership in the United States (per town population) is that at Kannapolis, N. C., where Cannon Mills Co. built, more than five years ago, a very beautiful community "Y." The building, a memorial to the late James W. Cannon, founder of the company, and his wife, the late Mrs. Mary Ella Cannon, has a variety of facilities, including an expansive library, dining hall, swimming pool, and gymnasium that are enjoyed by all residents of the town as well as groups from all over the state during tournament time.

North Charlotte's "Y"

One of the newest "Y's" is located in North Charlotte, the North Carolina community so described because of its geographical proximity to Charlotte proper. It is a busy, teeming, highly industrialized city-within-a-city. Within its area are located residential streets, shopping districts, and little and big industries, including textile mills. There, last December, with an impressive and touching ceremony, a beautiful new YMCA building was dedicated as a memorial to the late Horace Johnston. Its dedication marked another milestone in fine community relations in textile mill towns.

The new memorial was built and equipped at a cost of half a million dollars by the North Charlotte Foundation, a non-profit organization supported by Highland Park Mills, Johnston Mills Co., and Johnston Mfg. Co. The building was then turned over to the North Charlotte YMCA for management and operation. The "Y" currently has more than 1,500 members, but membership has increased so rapidly that at least 3,000 is the expected springtime goal. Although built by mill interests, who also underwrite its annual operating expense, the building is a gift to all citizens of the North Charlotte area.

A Community Center

The Horace Johnston Memorial Building has all the better features of

(Continued on page 236)

THIS HALF-MILLION-DOLLAR YMCA was built by Wiscassett Mills for the citizens of Albemarle, N. C., and dedicated to Wiscassett employees. Its features include a spacious gymnasium (right), a dining hall, club and game rooms, and library. While it accents youth programs, the "Y" is a social and recreation center for the entire community.

Now, it's a case of better fabrics . . . faster. Standard's quality products and technical know-how can help you meet government standard specifications. Here's a list of Standard product uses from carding right on through to finishing.

For faster, better carding of cottons, rayons and synthetics, use Standapol and Stantex products.

For faster and better desizing, use Stantex Penetrator 40.

Improve your sulphuric acid sour by using Stantex Penetrator 40.

Use Turpenol XXC in kier boiling, continuous boiling, and jig boiling to save time, improve quality and lower costs.

In Rodney Hunt slack soapers . . . use Pyrotex, a detergent that cleans in any kind of water at any temperature.

Mercerize with Mercetex 756 at any concentration up to 60° Twaddle for perfect lubrication and penetration. Mercetex 756 stores well in reclaimed Caustic and the wetting speed is just right.

Dyebath . . . Vats, Sulphurs or Directs, use Penetrator 111 and Sanforol 50D. Stop your scum and dye spots, and get good penetration.

For dispersing, retarding and leveling light and dark shades on difficult government fabrics, use Retardine and Retardine D.

Clean up your dyed goods by using Pyrotex, Stantex NR-2, and Standapon. Excellent detergency, stability at boil, stability in acids or alkalis, and stability in soft or hard water. Easily rinsible. Economical to use.

Finishing and Sanforizing . . . Standapol 16 and Sanforol 50. They give the correct hand and softness, have excellent sewing characteristics, and they will not injure the most delicate skin.

Write today for complete details on the process and Standard product in which you are interested.

STANDARD CHEMICAL PRODUCTS, Inc.

1301 JEFFERSON STREET, HOBOKEN, NEW JERSEY

Chattanooga, Tenn. • Paterson, N. J. • Providence, R. I. • Sunbury, Pa. • Sacramento, Calif.
Greensboro, N. C. • Leaksville, N. C. • Salisbury, N. C.

Manufacturer of: Pyrotex—Standapol*—Stanteosine—Retardine*—Standafin—Stantex* *Reg. U. S. Pat. Off.

Entirely New Spindle

makes uptwisters produce more and better yarn at lower cost

Compare Uniflex Roller-Bearing Spindles with the spindles you are now using

Here's what you'll find:

1. You'll save oiling, cleaning and other maintenance time. There's no free oil . . . no oil splash . . . no contamination of yarn. Freedom from oil spray reduces lint accumulation . . . eliminates need for frequent cleaning. Lubrication system meters only enough oil from sealed-in felt reservoirs through porous bronze bushings to keep a thin film of oil on bearings. Needle-injected oil supply lasts a year. Less spindle vibration cuts down wear on spindle swing and other parts of your twister.

2. You'll run at higher spindle speeds . . . giving you more production per square foot of space. Flexible lower spindle blade cuts down vibration . . . reduces bearing loads . . . increases spindle life . . . allows safe speeds up to 16,000 RPM under satisfactory conditions.

3. You'll use less power under all operating conditions. High-speed flexible lower blade and unique bearing design reduce bearing loads and cut spindle power consumption to an all-time low.

WRITE FOR BULLETIN S1 which gives you complete data on Uniflex Spindles for endless belt drive — or contact our nearest sales office for full information.

23.1.31

UNIVERSAL WINDING COMPANY

P. O. Box 1605, Providence 1, R. I.

Boston, Philadelphia, Utica, Charlotte, Atlanta, Chicago, Los Angeles; Montreal, Hamilton, Canada; Manchester, England; Paris, France; Basle, Switzerland

Agents in every principal textile center throughout the world

Winding and Twisting Machinery for Natural and Synthetic Yarns

LETTERS FROM OUR READERS

Address all communications to:

Editor, *Round Table*, TEXTILE WORLD
330 West 42nd Street, New York 36, N. Y.

Round Table

TRUSTING AVERAGES

Dear Editor:

In reference to the article on "Can You Trust Averages" that began on page 155 of the October, '51, issue, I believe that some readers may be confused from the illustrations given and the text, because of insufficient preciseness of the latter.

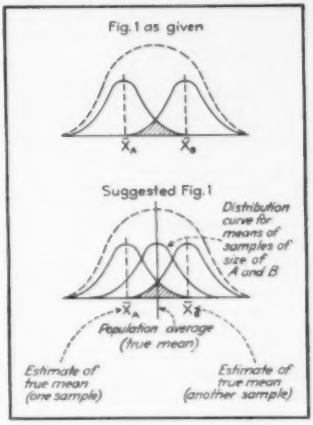
For example, the author states on page 157 that "yarn produced from roving A is actually no stronger than that from B", and the caption to Fig. 1 on page 155 reads: "The two sets of data describe the same population." Yet instead of proving these two samples are from the same population, it is merely stated that the samples do not constitute evidence of two different populations.

Actually, there might be two different populations present, with very small differences in the means, that larger samples than these described would be able to distinguish.

Instead of saying "A" is no stronger than "B," the author should therefore say that these samples do not constitute sufficient evidence that "A" is stronger than "B."

It seems to me also that instead of overlapping distribution curves of the averages of the two samples, the point of Fig. 1 would be clearer if the drawings showed the average for the population and a single distribution for averages of the size of these samples about that population average. The fact that the averages of the two samples both fell within the limits of this chance curve for the entire population would then have been evidence that both *could* have come from the same population.

T. ELLISON NEAL
Winnsboro, S. C. U. S. Rubber Co.



Dear Editor:

It is true that in any significance test we either find that there is a significant difference between the two things we are comparing, or we fail to find such a significant difference. We do not actually prove the two things not significant, but merely show that from the data on hand there is insufficient evidence to indicate a significant difference.

Hence, either the sample sizes are not large enough to truly represent their respective populations, or the populations themselves are one and the same.

For those unfamiliar with statistical concepts, however, this double-negative approach is difficult to grasp. Thus, in my article it was inaccurately inferred by some readers that if the two things have not been proven significantly different from each other, they must be the same.

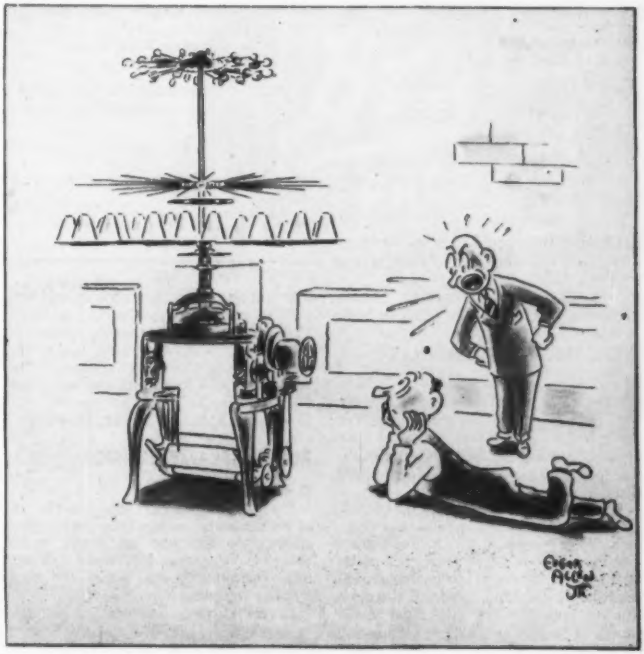
As for the diagrams, Mr. Neal is again correct. Unfortunately, in my original manuscript there appeared a diagram similar to Figure 1, but it was unfortunately used only to illustrate the text given under the illustrations on the first page.

The problem merely was stated as being to determine whether two such sets of data are or are not significant from each other.

So no captions should have been used drawing conclusions as to whether the illustrated data did or did not represent different populations. I agree that the captions as shown were incorrect in this respect.

EDWARD S. RUDNICK
New Bedford, Mass. Wamsutta Mills

TEXTILE TICKLES . . . . . *By Edgar Allen, Jr.*



"All right! So you could put wings on it and make it fly!—Get back to work!!"

LOOM STOPS

Dear Editor:

This letter refers to the article by J. Archibald Taylor entitled "When Should You Worry About Loom Stops" on pages 106 and 107 of the January issue.

Referring to formula (2) under, "The Formulas in Action," page 107, I am able to follow through the first three steps, with the exception of the presence of the radical sign in conjunction with "23.85." Where did this one come from, or why is it placed here?

If I again extract the square root of 23.85, and carry on from there, I wind up with .066 or .277. If it is understood that the value on the left side of the equation is the square root of p', how do you solve for the answer?

I shall appreciate it tremendously if you will clarify this point for me. I believe that the contents of your article will help me to evaluate my warp-stop studies more intelligently. I should have had this information ten years ago!

ERNEST R. BECKNER
Lexington, N. C. Frank Ix & Sons

Dear Editor:

With regards to Mr. Beckner's understandable confusion, it looks as though some of the symbols in my article got scrambled along the way somehow.

The problem in question deals with the solution of the equation

$$\sqrt{p'} = \frac{3 \pm \sqrt{\quad + 4\,np}}{2\sqrt{n}}$$

for the limits of p' (true value of loom stops),
where the average number of loom stops per hour observed (p) in a study of 200 loom hours (n) is 0.70.

Substituting, we find that

$$\sqrt{p'} = \frac{3 \pm \sqrt{9 + 560}}{2\sqrt{200}} = \frac{3 \pm 23.85}{28.38} =$$

0.735 and 0.947.

Squaring these values to solve for the limits of p', you obtain the answers shown in the article:

$$p' = 0.54 \text{ and } 0.90$$

I believe this should clear up the question raised regarding the solution of this problem.

J. ARCHIBALD TAYLOR
Greenville, S. C. Judson Mills

WELCOME TO GREENVILLE

Dear Editor:

"The Piedmont" welcomes TEXTILE WORLD most heartily to Greenville. You are to be congratulated on your good judgment in selecting the Textile Center of the South as the base for your editorial operations.

We note that in announcing the consolidation of your editorial and business offices here, your publisher, E. D. Fowle, said that the location "at the geographic center of the textile South will better coordinate the editorial operation," and that the move also was occasioned by "the rapid textile growth of South Carolina and neighboring states."

To Chief Editor Prentice M. Thomas, a Southerner by birth, schooling, and textile experience; to District Manager William G. Ashmore, a native who needs no introduction to Greenville; and to the entire staff of TEXTILE WORLD, "The Piedmont" says, "good luck and happy editing in Greenville."

Greenville, S. C. "THE PIEDMONT"

Test Your TEXTILE IQ

► **Each correct answer rates 10 points. A total of 70 is passing; 80, good; 90, excellent; 100—you're a genius! Keys to answers are on page 206.**

1. A growing business practice that is unfair to established mills working under the American system is the attracting of plants to new areas by means of
   a. lower labor-cost estimates
   b. high-speed-machinery installations
   c. one-story windowless buildings
   d. municipally-owned facilities

2. By means of a $30 portable carriage, an electric hoist, and two small chain hoists, Trion Div. Mill of Riegel Textile Corp. during eight working days moved from one floor to another
   a. 276 Draper looms
   b. 32 Saco-Lowell roving frames
   c. 212 Whitin cards
   d. a complete parts-supply room

3. Seventy-four pin drafters at $6,500 each paid for themselves in cost savings at four leading worsted mills after production runs of approximately
   a. 96 weeks
   b. 183 weeks
   c. 210 weeks
   d. 295 weeks

4. By means of a warp-shed tester, Southern Regional Research Laboratory has found over a 5-yr. period that an average mill warp sheds in weaving, per 100 lb. of yarn,
   a. 0.70 to 0.85 lb.
   b. 1.0 to 1.2 lb.
   c. 1.5 lb.
   d. 2 lb.

5. Neps are most likely to be decreased if you
   a. work the cotton less
   b. avoid excessive speeds
   c. keep air currents down
   d. don't draft excessively

6. A new device for circular knitting machines reduces fabric shrinkage from bottom fluted-rolls tension by
   a. 20%
   b. 30%
   c. 40%
   d. 50%

7. At William Carter Co., Barnesville, Ga., knitting machines on knitted-sleeper and underwear fabric are overhauled
   a. every month
   b. every 6 weeks ....
   c. every 600 to 800 hr.
   d. every 1,000 to 1,500 hr.

8. Seconds from irregular weaving of nylon carpeting have been reduced at Nye-Wait Co. by means of
   a. an electronic beam let-off
   b. an electronic take-up
   c. mule-spun filling
   d. a softer pick

9. A 10% difference in the maturity of two cottons run experimentally at Wamsutta Mills resulted in a card-web nep-count difference of
   a. 40%
   b. 65%
   c. 85%
   d. 110%

10. The second biennial Knitting & Allied Crafts Exposition is to be held from April 21 to 25 in
   a. Atlantic City
   b. Boston
   c. New York
   d. Philadelphia

ROVING-FRAME TENSION

Dear Editor:

Every practical carder who has the use of an automatic roving tester knows that it can help him find any defect in his tension. The roving tester can tell you more than the eye can see or the hand can feel regarding tension.

In many cases, however, carders and superintendent get too scientific with the automatic roving tester.

When the tension on a frame has been adjusted to a nicety with the help of the tester, that should be enough until a change in stock is made. But I know many card-room men continue to make tests with the roving tester; and in some cases I know of, bottom cones have been sent to the machine shop to be turned down gradually to about one-third of the original cone.

Card-room men shouldn't go to all that trouble. They should remember that different cottons call for a different outline. When you turn the bottom cone down and later are obliged to run a cotton with different processing characteristics, you are licked.

The only thing to do in such a case is adjust the rack to a new starting point. Even at that, the movement of the rack is out of adjustment because of the changed contour of the bottom cone.

Providence, R. I. WILLIAM SHAW

FREE
TRIAL SAMPLE
Which of these Brytex products could make your job easier? Check the ones you would like to give a real plant test. We will immediately send an adequate sample and in addition, provide any laboratory services you would like to request.
✓ SLASHING
☐ LUBRENE — A softener and lubricant for synthetics and cotton. Prevents rough, brittle warps.
☐ LIQUISIZE — Softener and plasticizer for homogenized starch. Emulsifies in cold water. Easily removed in finishing.
☐ SPUN SIZE S — Sizing gum for all staple fibers and all blends. Reduces shedding and balling of size.
☐ SYTEX — Special warp size for filament viscose and acetate. Gives tough, pliable film. Runs cleaner than gelatine or casein.
☐ CONDITIONOL W — Eliminates static! For uniform, high quality yarns.
PRINTING
☐ 745 GUM — Printing thickener for vat colors. Conserves color by increasing depth and brightness.
FINISHING
☐ 813 G GUM — A finish and weighter that will not discolor nor gum up. Recommended for Sanforized finishes.
☐ RESIN DJ — Synthetic resin for fabric stabilization. Crush resistance and permanent glaze. Compatible with other finishing resins.
☐ FIRMEL — Versatile resin finish, adaptable to permanent glazing, crush proofing and crisp finishes.
BRYANT CHEMICAL CORP.
N. Quincy 71, Mass. Box 2301, Spartanburg, S. C.
Brytex PRODUCTS
NAME ✓
POSITION ✓
Tear out and attach to your mill's letterhead

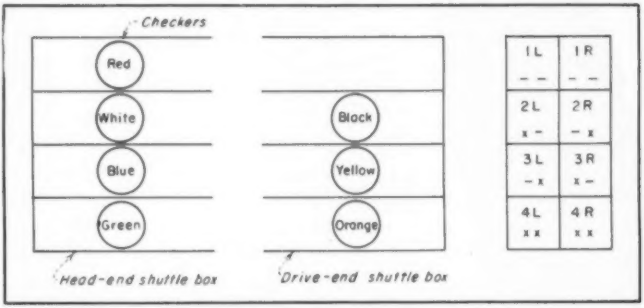
Kinks AND SHORT-CUTS

Box-Chain-Plotting Board Helps Us Lay Out Patterns

We change styles often on our W-3 convertible looms, and we found that we were spending too much time designing a box-pattern chain for each style change. There are several ways to lay out a chain draft, but all of them are complicated.

We worked out a simple method to quickly lay out a box-pattern on drafting paper. We now use two diagrams to represent each of the shuttle boxes on a convertible loom. We placed different colored checkers in each of the box cells where we want a shuttle. Up to seven colors of filling can be run.

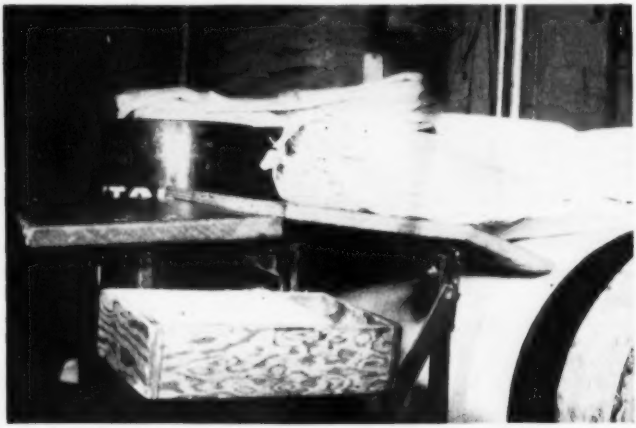
When we want to pick a shuttle of filling to a certain box cell, we move the checker from the box cell where it is resting to the selected box cell and record the movement on draft paper. We always know where all of the shuttles are.



EACH COLORED CHECKER represents a shuttle. A checker is moved to a different box cell, and the movement is recorded on the box-pattern chain paper at the right.

A job that once was tedious has now become very interesting.

Cloth Conveyor Now Stops Automatically



RIGHT-HAND SECTION OF PLATFORM is ordinarily tilted up. As a bolt of cloth reaches the platform from the belt, the weight of the cloth depresses the platform and closes the switch to stop the conveyor.

A conveyor from the inspecting tables to the shipper eliminated a lot of handling at a South Carolina mill, but the shipper had to keep a sharp eye on his end of the belt to prevent the cloth from being conveyed onto the floor. So the mill rigged up an automatic stop motion.

The little platform that the conveyor feeds the cloth onto was split into two sections. The section closest to the belt was tilted up, and a switch was put under one edge so that the conveyor motor would be cut off when the platform was depressed. As soon as a bolt of fabric reaches the table now, the conveyor stops. When the shipper lifts the bolt off the platform, the conveyor starts again and delivers another bolt to the same position.

The shipper's job is now easier because he doesn't have to watch the conveyor, and his job is more efficient because he doesn't have to wait for bolts or pick them up off the floor.

a dye of distinction

for practically any textile use

Calco®

improved CALCOLOID types of Vat Blue CI 1113

Fastness Ratings

Light	
Light shade	7
Medium shade	8
Dark shade	8
Washing	
Mild	5
Severe	4–5
Water	
Chlorine	3–4
Peroxide	4–5
Water spotting	5
Ironing	5
Colored yarn bleaching	excellent
Mercerizing	5
Dry cleaning	
Stoddard solvent	excellent
Shade change in artificial light	greener and duller

• Calcoloid* Blue BLNS Double Paste

Improved type for continuous piece goods dyeing; strongly recommended for pigment padding on cotton or rayon piece goods.

Minimizes specking—produces uniform results

• Calcoloid Blue BLFD Double Paste

Special type for rawstock and package pressure dyeing of cotton by the pigment method.

Gives good uniform dyeing throughout.

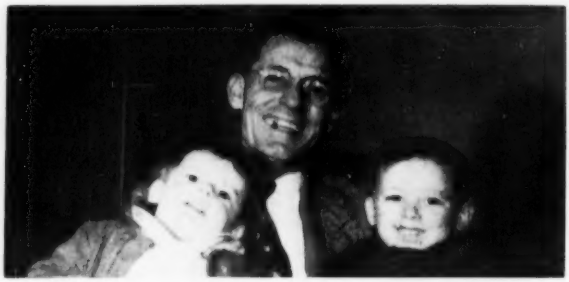
• Calcoloid Blue BLN Double Paste

For general types of dyeing, especially by the reduced method.

Recommended as the most generally useful of blues, the Calcoloid types of Vat Blue CI 1113 have gained wide acceptance because of their excellent shade, strength, fastness and working properties. Select the type which meets your conditions and consult your Calco representative for complete information and sample.

*Trade-mark

AMERICAN Cyanamid COMPANY
CALCO CHEMICAL DIVISION
DYESTUFF DEPARTMENT
BOUND BROOK, NEW JERSEY



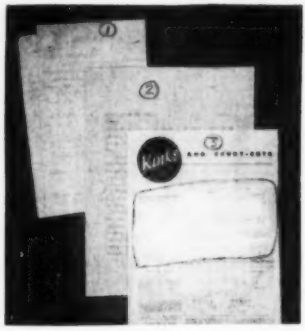
MEET THE CHAMP! W. N. Poe, winner of the 1951 Kink Contest, is shift foreman of spinning, winding, and twisting at Wehadkee Yarn Mills, Talladega, Ala. Mr. Poe's children share his smile of victory.

"If you keep sending in Kinks, you've got a much better chance of winning than if you just send one in occasionally," says W. N. Poe, winner of TEXTILE WORLD'S 1951 Kink Contest. Mr. Poe sent in several Kinks before he won the monthly prize last August with his "Our Spindles Are Self-Oiling With This Device."

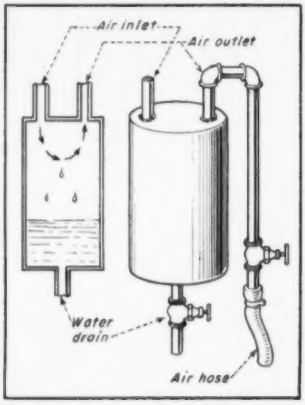
Mr. Poe, a regular TW reader, is shift foreman of spinning, winding, and twisting at Wehadkee Yarn Mills, Talladega, Ala.

Recipe for a Winning Kink

HERE'S HOW MR. POE WON THE ANNUAL PRIZE. 1. Sent in his Kink, complete with a rough sketch. 2. TW editors got the Kink ready for publication—edited it and had a beautiful sketch made. 3. The Kink appeared in the next issue, was judged by mill men, and won a monthly prize. Then, in another balloting, Mr. Poe's Kink was selected as the best of the monthly winners for 1951. Who's going to win in 1952? Now is the time to send it that idea you've been "meaning to write down and send to TEXTILE WORLD'S Kinks and Short-cuts Department."



Easily Made Water Trap For Compressed-Air Lines



CONDENSATION OF MOISTURE in compressed-air tanks and pipes often results in wet floors and machinery. This simple trap can be made in any welding shop from inexpensive materials. The trap consists of a cylinder with the inlet and outlet pipes for air at the top and a water drain at the bottom.

The cylinder can be made from a length of 6- or 8-in. pipe with top and bottom welded on. As the air passes through the trap, most of the water will drop to the bottom; and periodic opening of the valve will drain this water into a bucket or other receptacle. *W. C. Westbrook, Trion, Ga.*

$200 for Best Kink in 1952
$25 for Best Kink Each Month

In Addition to Space Payment on Acceptance

You undoubtedly know of many kinks and short-cuts that are helpful to mill operators. Write them down and send them in. We pay promptly on acceptance—before publication. In addition, your kink may win the $200 check for the best kink of the year or the $25 check for the best kink of the month; maybe both!

Send in your kink now. There is always a contest going on. The more good kinks you send in, the better your chances of winning a prize in addition to earning some easy money for every kink accepted.

We will polish up your writing and will have an artist make finished drawings. But send in plenty of details so that your kink can be clearly explained. Be sure your sketch is clear and well labeled, but it need not be a finished job. Best of all, send us a good glossy photograph of it—we will pay you extra if you do and we can use it.

Look over the kinks in this and other issues. You will get ideas you can use as well as inspiration for kinks you can send in. We like items that pertain to ways for improving machines, new devices that a mill man can build, attachments or methods of merit—anything that will cut costs, improve quality, or help production.

Your published kink will be judged impartially by other mill men. In case of ties, duplicate prizes will be awarded.

RULES OF CONTEST

1. No limit to number of entries.

2. New $25 prize contest every month, $200 prize contest for the year. Monthly contest confined to kinks published that month, yearly to those published in calendar year 1952.

3. All kinks paid for on acceptance; extra payment for photographs. Drawings need not be finished (clear detailed pencil sketches will do).

4. Previously published material not eligible for prizes.

5. Unless you advise to contrary, we assume we may sign your name to kink when published.

6. Prize winners will be selected by readers, a different group each time. At least 200 will be asked to select preferred kinks in each issue. Their votes will select the best kink, and their decision will be final.

Send kinks to whichever address you prefer:

TECHNICAL EDITOR, TEXTILE WORLD
201 E. Coffee St., Greenville, S. C.

TECHNICAL EDITOR, TEXTILE WORLD
330 W. 42nd St., New York 36, N. Y.

TEXTILE BANKING COMPANY

Inc.

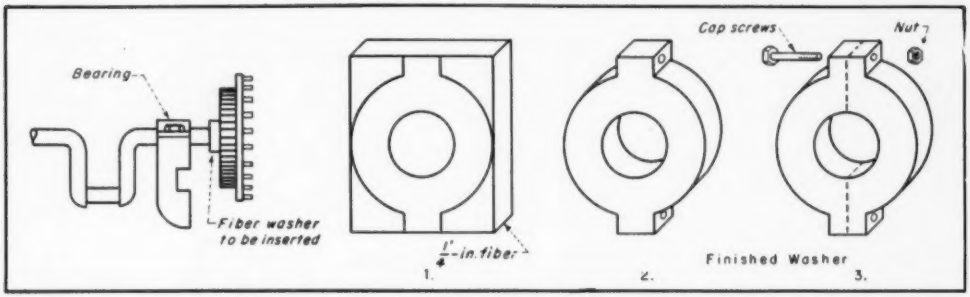
Factoring Service

Puts your sales on a cash basis
Strengthens your cash position
Relieves you of credit losses

55 MADISON AVENUE • NEW YORK

Kinks AND SHORT-CUTS

On Draper Looms—We Replace Friction Collars the Easy Way



OLD METHOD—Crankshaft bearing and several caps had to be loosened to replace a friction collar.

NEW METHOD—THREE STEPS. 1. Mark fiber with template. 2. Cut out excess fiber and drill holes. 3. Saw collar in half.

The fiber-friction collar of a crankshaft usually wears out before any other part of the crankshaft becomes damaged. Until we devised a new method to replace worn collars, we had to go to a lot of trouble to replace one.

The only correct way to replace the collar used to be to remove the crankshaft from the loom and press off the gear.

Since it is a hard job to remove a crankshaft, we often cut the new fiber washer with a hacksaw and placed it on the shaft without removing the shaft from the loom. Even to cut the washer and place it on the shaft required too much time. We had to remove several crankshaft-bearing caps, loosen one bearing to move it over, and then lift up the crankshaft.

When we had prepared the crankshaft, we sawed the new washer at an angle, spread it open, and forced it on the shaft. We broke a lot of washers when we did this.

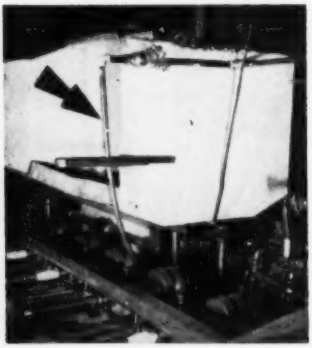
We now replace the washers by a new method that gives just as good results as crankshaft removal—and the new method requires little time.

We make the new collars from a piece of fiber ¼ in. thick by 4 in. square. A large number of the collars should be made at each time in the mill machine shop. A template can be used to lay out the individual washers, or they can be cut in a shaper as a unit.

After the washers are made, they are split and placed on the crankshaft with cap screws. No bearings have to be loosened.

When the split washers become worn, they can be easily removed. *Lloyd Senft, Allentown, Pa.*

Dancing Air Hose Cleans Abbott Units



A FLICK OF THE FINGER is all that's needed to start this air hose dancing back and forth to clean winding units while the machine is running.

In order to clean the winding units on our Abbott frames, we used to stop the whole frame to blow the lint off. Of course, this cleaning cut into valuable production time, and there was a tendency to let the dirt accumulate.

Now we don't stop the frame for this cleaning. We just diverted part of the air supply that comes to the frame anyway and rigged up an automatic cleaner.

We attached our device in the bobbin bin just opposite the delivery point. We used some ¼-in. pipe to bring the air over to a point just above the winding units as they go by. Then we attached a piece of rubber hose about 18 in. long and let it hang from the pipe. Halfway down the hose we put a guard ring about 9 in. long and 2 in. wide. Then we turned the air on with the valve we'd put in our branch line. All that happened was that air blew down on one point of each bobbin as it went by.

But here's the trick. If you snap the end of the hose with your finger, the hose will dance back and forth and blow the entire length of each unit several times in passing.

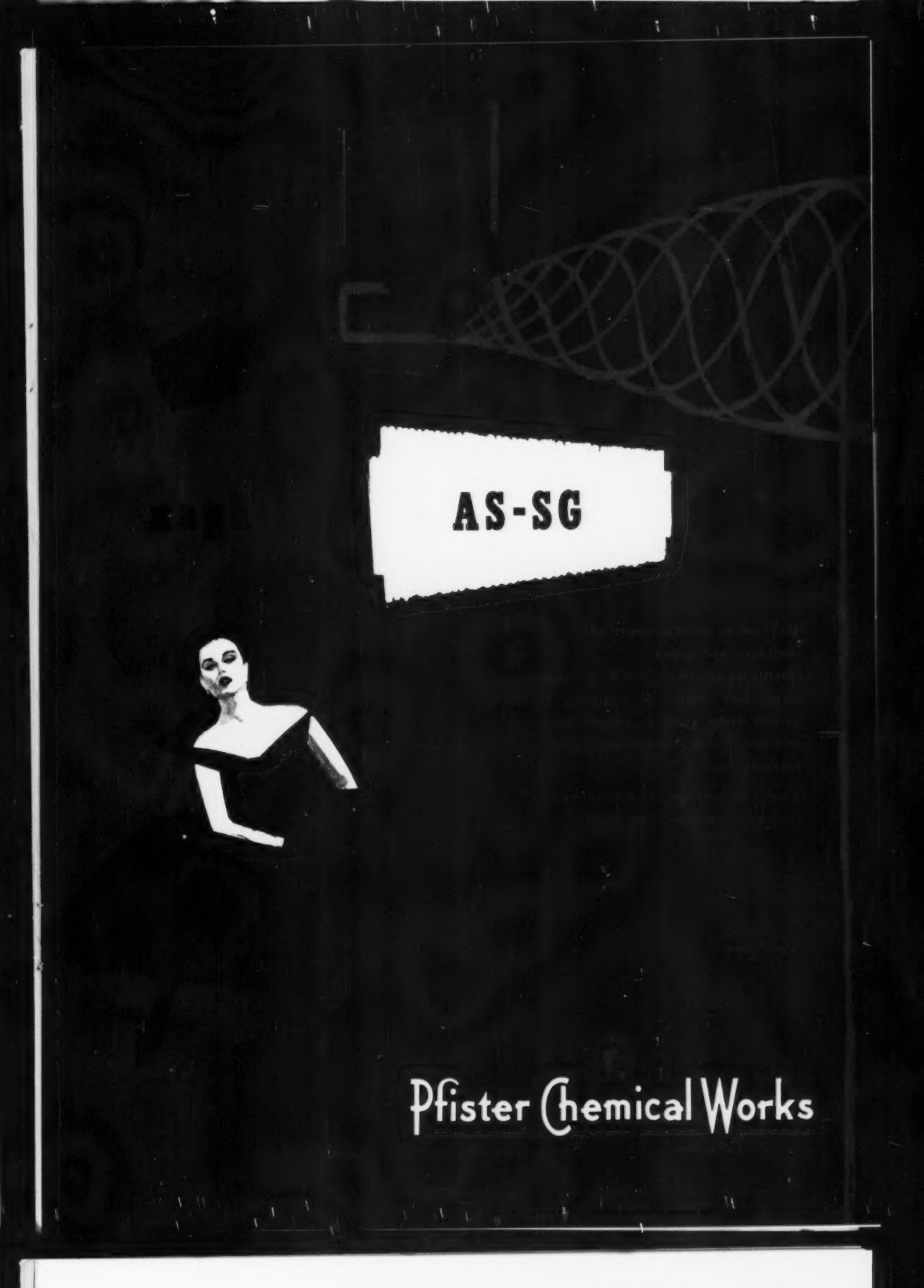
We Use Steel Wool To Tighten Lag Screws

We have C&K W-3 looms and have been having a lot of stripped threads in the lay beam. Since the threads in the wood that hold the reed-cradle lag screws have a lot of pressure on them, we always have some loose lag screws.

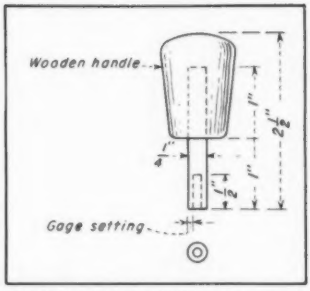
We now use steel wool to tighten the lag screws. We fashion a piece of steel wool to the length of the lag screw and about one-half the lag-screw diameter. The steel wool is put in the screw hole in the lay beam.

With a small screwdriver, we form a hole in the center of the steel wool so that some wool will be all around the lag screw. When we insert the lag screw, the steel wool imbeds itself into the wood and forms a secure thread.

This job is simple, is quickly done, is inexpensive, holds fast, and lasts for a long time. *Leslie Hayter, Huntingdon, P. Q.*


AS-SG
Pfister Chemical Works

This Gauge Helps Us Set Cleaner Pins to Rings



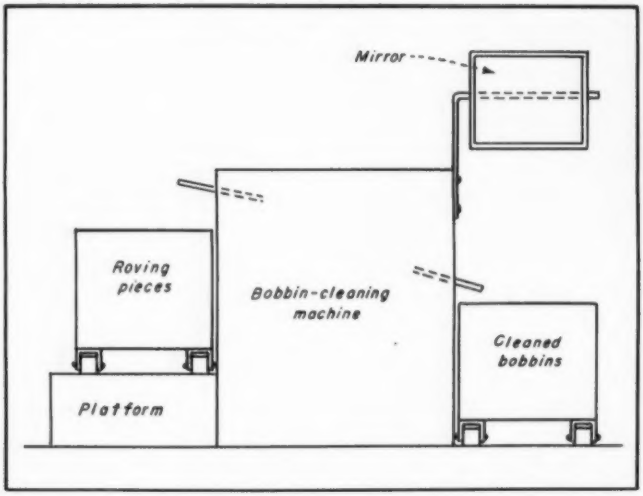
GAUGE SLIPS OVER CLEANER PIN, and the thickness of gauge's cylinder wall should equal the distance you want from pin to ring.

Correct setting of the cleaner pins on ring holders is important if the pin is to do a good job in keeping the traveler free from accumulated fly. We find that this simple gauge makes it easy to quickly set all the pins a uniform distance from the spinning ring.

The gauge itself is made from cold-rolled steel and can be hardened to prevent wear on the end. Drill a hole slightly larger than the cleaner pin in the end of the gauge. The thickness of the wall enclosing the hole should be just the distance you want from the pin to the ring.

To use the gauge, slip the hole in the end over the cleaner pin and move the pin toward the ring until it comes in contact with the ring flange. Then the pin will be properly located. The thickness of the wall shown in the drawing is 0.0625 in., but it can be of any desired thickness to give the best cleaning results on your own spinning.

Mirror Saves Steps at Bobbin-Cleaning Machine



ADJUSTABLE MIRROR replaces several steps with a quick glance. Now the operator knows just when the cleaned bobbins fill the box at the other end of the machine.

It used to be necessary for the operator of our bobbin-cleaning machine to step down from the platform and walk to the back of the machine to see when the bobbin box needed replacing with an empty box. The cleaned bobbins would often pile up over the sides of the box and spill out on the floor.

We rigged up this wooden-framed adjustable mirror as shown in the sketch. The adjustments on the holder allow the mirror to be tilted at the proper angle for the operator to see the inside of the cleaned bobbin box from his place at the front center of the machine without stepping down from the platform.

Red Light on Slasher Tells When Cut Mark Comes

JUST TO THE RIGHT of the cut marker, and on the same shaft, is a cam that operates a switch set right behind the cam.

RED LIGHT AT FRONT of air-drying chamber goes on when the switch at the back is pressed by the cam. Operator sees red light and knows cut mark is coming.

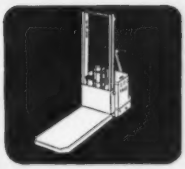
Operators of our air-drying slashers formerly watched for the cut mark at the back of the slasher and then ran around to the front to stop the slasher in time. They never would have known, by standing at the front, when the cut mark was due.

A red signal light on the front of the slasher now lets them know when to start looking for the cut mark. The light operates from the same shaft as the cut marker.

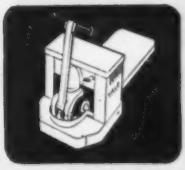
A little cam on the cut-marker shaft comes in contact with a switch when the cut mark is applied. The switch turns on the light at the front of the machine.

Not only does the operator not miss cut marks now, but he is also a lot more relaxed because he's got this gadget to help him do his job. *J. L. Lollis, Simpsonville, S. C.*

Pallet Worksaver



High-Lift Platform Worksaver



Platform Worksaver

High-Lift Fork Worksaver

GET HEAVYWEIGHT SERVICE FROM WELTERWEIGHT TRUCKS

YALE *WORKSAVERS*

Tractor Worksaver

USE *WORKSAVERS*

in moves involving freight elevators. YALE WORKSAVERS may be carried safely on the elevator with the load, eliminate reloading and relifting.

USE *WORKSAVERS*

on low-load floors. Mechanize areas out-of-bounds to heavier trucks with speedy, dependable, low-cost YALE WORKSAVERS.

USE *WORKSAVERS*

in tight storage areas. They're easy to manage in narrow aisles; save time, cost and effort in moving and storage operations.

YALE WORKSAVER Electric Trucks lift, stack and carry loads up to 6,000 lbs., and may be used in many areas where weight or space rule out big-truck use. Low in initial cost, economical in operation, and simple for anyone to use—their performance meets the quality standards that industry identifies with YALE Industrial Trucks of every kind.

CALL YOUR YALE REPRESENTATIVE FOR A FREE WORKSAVER DEMONSTRATION

Get an eye-opening demonstration of rugged WORKSAVER performance. Be sure to ask about the famous WORKSAVER *Power Team*—Truck, Battery, Battery Charger. There's no obligation, of course.

MAIL THIS COUPON TODAY

The Yale & Towne Manufacturing Co., Dept. 554
Philadelphia 15, Pa.

I want to know how YALE WORKSAVERS can help me.

- ☐ Please have your local Representative call.
- ☐ Please send free copy of GEMS OF LOW COST MATERIALS HANDLING at once.

Company_____

Name_____ Title_____

Street_____

City_____ State_____

In Canada write: The Yale & Towne Mfg. Co., St. Catharines, Ont.

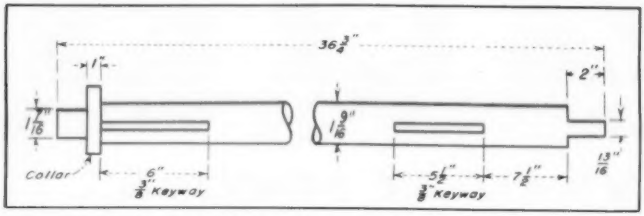
YALE & TOWNE

The Yale & Towne Manufacturing Co., Philadelphia 15, Pa.

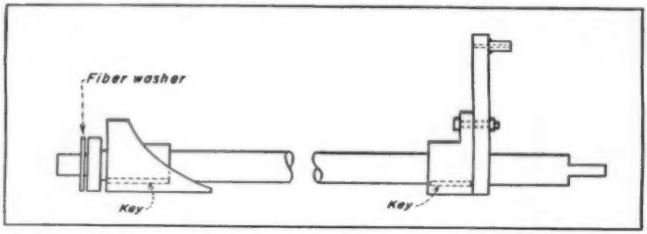
YALE is a Registered Trade Mark of The Yale & Towne Manufacturing Co.

YALE GAS AND ELECTRIC TRUCKS • YALE HAND TRUCKS • YALE HAND AND ELECTRIC HOISTS

Round Picking Shafts Give Little Trouble



ROUND SHAFT FOR W-3 LOOMS is machined from cold-rolled steel. Keyways are cut for keys that hold the picking shoe and collar.



A FIBER WASHER is placed behind the steel washer to reduce wear. Regular picking shoes and picking arms are used.

We were having a lot of trouble with our picking motions on W-3 looms. Picking shafts did not last long, and sweep arms were repaired so often that production suffered.

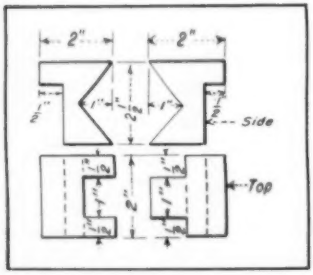
To try to reduce the picking-motion failures, we had our machine shop make several round picking shafts that fit into our regular stands. By cutting keyways in the shafts and using keys, we are able to use standard picking shoes and picking arms.

We plan to replace all of our square picking shafts with the round type in a normal loom replacement program.

Along with the round shaft, we use a fiber washer that reduces the wear of the back-shaft collar and the back-picking-shaft stand. The back end of the shaft is turned on a lathe to the regular dimensions plus the thickness of the fiber washer.

We have run the round shafts for a few months without any major adjustments. We find that the picking action is smooth—and we have plenty of power. We see no apparent wear on the shoes or shafts. *Harvey E. Boucher, Lawrence, Mass.*

Hold Round Stock Securely in Your Vise



BLOCKS LIKE THESE give a firm grip to round stock you want to hold in your vise.

These blocks come in handy for holding various sizes of round stock securely in the vise. The lip on the top end of the back of each block rests on the top edge of each vise jaw and holds the block in position.

The tongue-and-groove shape of the two blocks permits very small stock to be held securely. Fine notches may be filed in the faces of the blocks. Brass blocks are used to hold rolls to prevent damage to the rolls. For very heavy or large stock, the dimensions of the blocks can be increased.

Use Colored Tapes To Mark Sliver Cans

We've tried lots of methods of marking sliver cans to identify different kinds of stock. When many trial runs of small amounts of different stock are processed on cards or drawing frames, it is often necessary to use a number of different colors on the cans to avoid mix-ups of the stock.

We tried painting narrow bands a few inches below the top of the can, but this method took too much time and tied up too many cans.

We now use different colored spinning tapes that have been dyed the required colors in our mill dyehouse. A small number of tapes can be painted with a stain in the mill paint shop.

A length of ¾-in. spinning tape 34 in. long is needed for each 12-in. sliver can. A piece of regular white garter elastic ⅜ in. wide and 4 in. long is used to join the ends of the colored tape. This combination makes a flat, flexible loop of colored tape that can easily be slipped over the top of the can and be held securely in place. The tape can be removed and replaced with one of a different color when not needed. The tapes can be used repeatedly without affecting the elasticity of the small 4-in. inserted section.

Best-Kink Award for February

Each month TEXTILE WORLD awards $25 to the submitter of the kink judged by a panel of over 200 practical mill men as the best for that particular month. A new batch of kinks appears each month, and a new group of readers acts as judges each month.

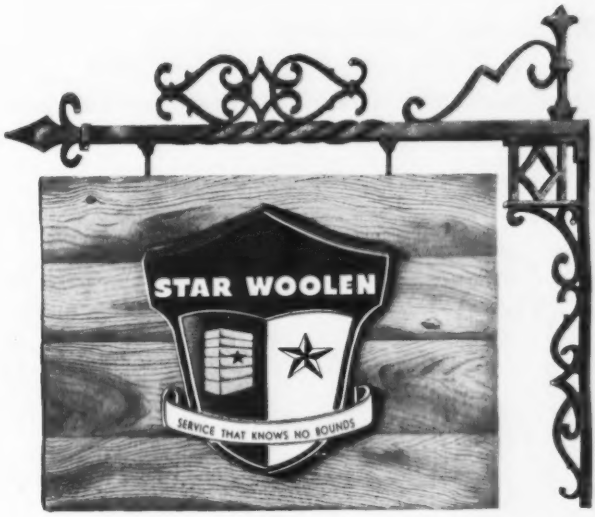
If you are asked to judge one of these days, be sure to help select the best kink by sending back your answer in time for final tabulation. Closing date for judging is the last day of the month in which the kink appears.

The best kink for February, according to TEXTILE WORLD reader-judges, was:

"Sew Two Seams at Once With This Sewing-Machine Set-Up"

Kenneth Kiser, Concord, N. C.

Mr. Kiser is being sent a check for $25 with the compliments of TEXTILE WORLD.



Sign of Service..... Dependability..... Quality Control
... in Textile Fibres and Synthetic Garnets

At Star Woolen garnetting is more than a mere processing of textile wastes. It is an exact science, carefully controlled by constant laboratory analysis to produce quality materials to YOUR specifications, whether your requirements call for wools, any of the new synthetics, or blends. Add Star Woolen's reputation for dependable service and you'll discover, as have producers throughout the world, why this familiar sign is the mark of excellence and economy in textile fibres.

Free Laboratory Analysis of Your Fibres

To assist you in controlling quality utilizing blended fibres, and to assure correct labeling, Star Woolen Co. offers you the facilities of its outstanding, newly enlarged research laboratory for fibre analysis, without cost or obligation.

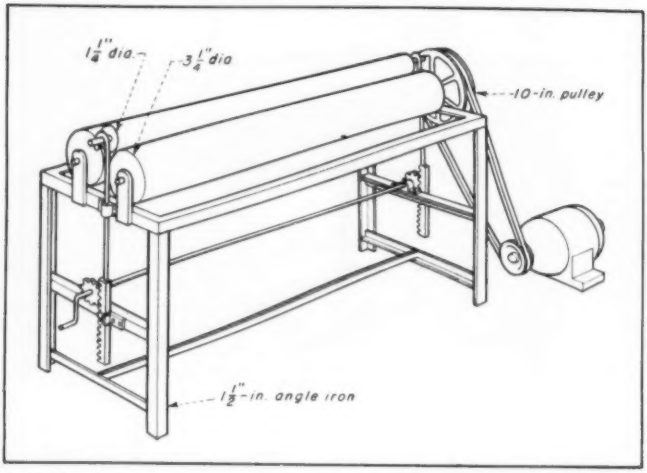
WRITE TODAY FOR FREE DESCRIPTIVE FOLDER 52A

STAR WOOLEN co.

Cohoes, New York

For more information, write direct or use Reader Service post card.

Lap Sticks and Clearers Are Wound by Machine



OLD WOODEN BEAMS on an angle-iron frame make the covering of lap sticks and clearers a neat job.

When the covering on our lap sticks or clearers became loose, we used to replace the covering, glue it on, and wind the rolls with thread until the glue hardened. Now we use a little machine to do this job more efficiently.

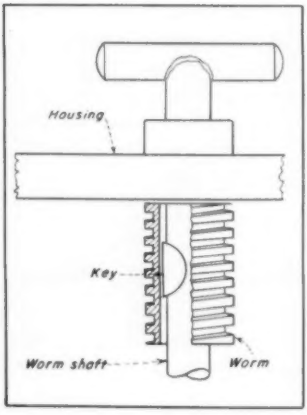
Old wooden beams about 3¼ in. in diameter are set on an angle-iron frame, and one of them is motor driven. A rack-and-pinion arrangement holds the lap sticks in contact with the two larger rolls.

When we re-cover a roll now, we just put the glue on the roll, put the roll in the machine, replace the cloth, and start the motor. The wooden rolls press the cloth and apply it uniformly. The re-covered rolls dry much more quickly now.

Over-all length of the machine is 42 in., and it is 20 in. wide. Any old bearings can be used for the wooden rolls. If you don't want to use a motor, the device works equally well when turned over by hand.

For the rack and pinion, there should be at least 1 ft. of rack to allow the roller to rise as the covering is applied. We used old cloth-roll stands from looms here. *J. B. Boyter, Albertville, Ala.*

How We Stopped Set Marks on S-6 Looms



We found that a lot of our set marks could be traced to the let-off on S-6 looms. We tore down several of the precision let-offs and found that the worm was loose on the worm shaft in nearly every case. It seemed that the key was too small for the worm, and this condition caused the worm to slip against the housing and bind the warp loom on the first few picks of a loom that had been stopped.

To eliminate this trouble, we now use an oversized key to replace the No. 9 Woodruff key. We find that the larger key reduces our let-off set marks to a great extent. *C. R. Batzer, Lancaster, Pa.*

OVERSIZED KEY on worm shaft of S-6 looms helps reduce set marks.

Magnetic Steel Bar Helps Lubricate Cable

It's often necessary to use a thin lubricant to make sure that any lubrication at all gets down into wire cable in inaccessible places. Even then, sometimes dirt will prevent the lubricant from doing its job.

A magnetized steel bar can be used to pull the cable up and open the strands sufficiently to do a good lubricating job. This method is much better than trying to pry the cables up because there's much less chance for damage to the strands. *W. E. Warner, Essex, England*

How We Cut the Cost Of Drying Rayon Cakes

We've cut the cost of drying rayon cakes from $0.0088 per lb. to $0.0028 per lb. To put 100-den. rayon cakes through the drying operation we used to do it this way:

1. Open the cake
2. Put the cake on the cone
3. Pull the top cover up
4. Pull the bottom cover down
5. Pull the top cover down
6. Remove cake from cone
7. Turn cake around
8. Replace on cone
9. Put top cover down
10. Pat the cake
11. Remove cake and place on table

Now we use this method:

1. Open the cake
2. Put the cake on the cone
3. Remove the cake from the cone
4. Turn cake around
5. Replace on cone
6. Remove cake and place on table.

We used to handle 920 cakes in an 8-hr. shift, with ½ hr. out for lunch. Now we can handle 2,850 cakes in the same length of time.

End breakage in winding under the old method averaged 26 in 3½ hr. Now we have only 12 ends breaking in the same amount of time.

MAKES FINISHES MORE DURABLE...

Crush Resistant, Stabilized, Glazed, Embossed

EVEN
AFTER
REPEATED
WASHINGS
RHONITE R-1
Stable to storage—no refrigeration needed.
Non-volatile—applied and controlled with ease on standard resin finishing machinery.
Completely soluble in cold water—simply add and stir.
Compatible with other commonly used finishes.
RHONITE R-1
—another outstanding textile chemical by the makers of LYKOPON.

Be wise and thrifty. Get full details of unique new RHONITE R-1 textile finish.

CHEMICALS FOR INDUSTRY

ROHM & HAAS COMPANY

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Representatives in principal foreign countries

RHONITE, LYKOPON are trade-marks, Reg. U.S. Pat. Off. and in principal foreign countries.

STAYS WHITER because it STARTS WHITER!

INTERIOR SURFACES STAY CLEANER..LONGER ..WITH KEM SAVE-LITE..THE WHITER WHITE!

How long white paint *stays* white—and *how* white it stays—depends, in part, on *how white it is to start with.*

Sherwin-Williams KEM SAVE-LITE Finishes for mill interiors cut upkeep costs because their brilliant whiteness both starts higher and stays higher in light reflection value. These facts are borne out not only in laboratory tests, but in year-after-year experience in leading textile mills the country over.

Test KEM SAVE-LITE for yourself against any conventional mill white finish. See the difference—in initial whiteness—in hiding power—in greater covering capacity. Call your Sherwin-Williams representative for a demonstration, or write The Sherwin-Williams Co., Cleveland 1, Ohio. (Division office, Charlotte, N. C.)

Types to Meet Varying Requirements

Sherwin-Williams Save-Lite is supplied in several types to meet varying operating conditions, both in oil type (Save-Lite) and synthetic (Kem Save-Lite). Gloss finish gives extreme ease of cleaning; Eg-Shel greatest diffusion and reflection of light. Fume and moisture-resisting types give added resistance where chemical fumes, moisture and heat are encountered.

SHERWIN-WILLIAMS

INDUSTRIAL MAINTENANCE FINISHES

SAVE-LITE MILL WHITE • COLOR HARMONY FINISHES
MILL VILLAGE PAINTS

For more information, write direct or use Reader Service post card.

Free Technical Information

Reader Service

MILL EXECUTIVES may obtain free for the asking . . .

. . . OUTSTANDING TRADE LITERATURE reviewed on the next and following pages

. . . FURTHER INFORMATION on
New Textile Equipment
New Dyes & Chemicals
New Useful Accessories
Editorial Articles
and the Advertisements

WRITE ON THIS CARD →

. . . to get more information on anything published in the editorial or advertising pages of this issue. If your inquiry concerns equipment or supplies, name the specific equipment or supplies involved. If your inquiry concerns anything other than equipment or supplies, you must state specifically the information you want.

. . . to send a Kink, a letter for Round Table, or a news note.

. . . to comment on anything appearing in this issue.

. . . to query the editors about any manuscripts you might wish to submit to them.

. . . to send an inquiry to the Questions & Answers department.

●

Cards require no postage . . . but be sure to give your name, title, mill connection, and address.

●

CIRCLE THE NUMBERS ON THIS CARD →

. . . to request copies of trade literature described on the next and following pages or to get more information on New Useful Accessories described in this issue.

Dear Editor APRIL, 1952

Please send me additional information on the following:

PAGE	SUBJECT	PAGE	SUBJECT
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

Name..... Title..... Mill.....
Please print or write legibly

Street..... City..... (. .), State.....
This Card Expires June 30, 1952

Please send me the following: APRIL, 1952

TRADE LITERATURE Number: F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 F13 F14 F15 F16 F17 F18 F19 F20 F21 F22 F23 F24 F25 F26 F27 F28 F29 F30 F31 F32 F33 F34 F35 F36 F37 F38 F39 F40 F41 F42 F43 F44 F45 F46 F47 F48 F49 F50 F51 F52 F53 F54 F55 F56 F57

NEW USEFUL ACCESSORIES Number: U1 U2 U3 U4 U5 U6 U7 U8 U9 U10 U11 U12 U13 U14 U15 U16 U17 U18 U19 U20 U21 U22 U23 U24 U25 U26 U27 U28 U29 U30 U31 U32

Name..... Title..... Mill.....
Please print or write legibly

Street..... City..... (. .), State.....
This Card Expires June 30, 1952

Outstanding TRADE LITERATURE *Free for the Asking*

NO REPEATS . . . Listed here for April are current bulletins reviewed by the editors of TEXTILE WORLD. To get the ones you need, circle the number on the Reader-Service card, as described on the preceding page.

TEXTILE MACHINERY

The Pacific Converter is described in a folder issued by the Warner & Swasey Co. If you've ever wondered just how this machine works, your questions will be answered by the clear-cut sketches and explanations presented. **(F-1)**

Precision-twisted cords in the smaller sizes are made on the 12-head twister described in a brochure made available by Haskell-Dawes Machine Co. Creels, stop motions, and tanks for twisters are also covered in the publication. **(F-2)**

Impregnating equipment of the vacuum-pressure type is shown in a folder from Process Industries Engineers, Inc. The equipment is used to make textile materials waterproof and fireproof. Insulating qualities can also be developed by the process. **(F-3)**

"An auxiliary quetsch is a good investment," says a recent warp-sizing folder published by Charles B. Johnson. The extra quetsch is said to be particularly helpful in slashing warps that contain different fibers. A drawing shows how the auxiliary unit is used. **(F-4)**

Reed-polishing apparatus can now be attached to their heddle-brushing machine, according to a bulletin from H. J. Theller Corp. You'll hardly recognize dirty reeds after this machine has done a job on them. The fully automatic device comes in three sizes for reeds that are 55, 75, and 85 in. long. **(F-5)**

Pre-twisting and cabling of rayon tire cords is discussed in a recent issue of Platt's Bulletin. Other sections of the publication present ideas on opening arrangements for worsted cards and on grinding procedures for card flats. **(F-6)**

AUXILIARY EQUIPMENT

A guide to care of electric motors has been prepared by Allis-Chalmers Supply Co. The handbook, which contains no advertising, is just full of vital facts on motor care—and the handbook tells the "why" in addition to handing down rules. **(F-7)**

When? How long? How many? These questions are answered for you by the meter with a record, an instrument described in a bulletin published by the Esterline-Angus Co., Inc. These operation recorders are being used for such textile operations as looms, braiders, spinning frames, spoolers, winders, and twisters. Several types of records can be kept with the recorders. **(F-8)**

A 60-page catalog on X-ray diffraction and Geiger-counter X-ray spectrometric equipment has been issued by North American Philips Co., Inc. In addition to X-ray diffraction, spectrometry, and fluorescence, the catalog also covers tubes, rectifiers, and cameras. **(F-9)**

Applications of variable-speed motor drives are given in a publication offered by Reeves Pulley Co. **(F-10)**

An improved speed indicator that has a ball-bearing spindle and extra scale divisions is the subject of a folder prepared by Herman H. Sticht Co., Inc. Four individual ranges accurately measure the entire range from 0.02 to 100,000 rpm. **(F-11)**

Practically all the instruments, control devices, and related components that Minneapolis-Honeywell Regulator Co. makes are described in a comprehensive catalog just issued. Specifications of about 100 measuring and control instruments and valves are outlined. **(F-12)**

Viscometers of both the recording and the recording-controlling types are featured in a bulletin from Norcross Corp. Applications to cotton, rayon, and nylon sizing are pictured and discussed. **(F-13)**

Textile motors for spinning frames, roving frames, pickers, etc., are described in a leaflet issued by Diehl Mfg. Co. Ratings of the motors range from 1.5 to 15 hp. **(F-14)**

If you're interested in flow—of steam, water, air, gas, oil, solutions, or other fluids—you'll want to send for F-15 on the Reader Service postcard, a bulletin from the Bristol Co. Both mechanical and electric flow meters are described; and the instruments record, integrate, indicate, control, and meter the fluids. **(F-15)**

"Electronic Transmission and Control" is the subject of a brochure prepared by Swartwout Co. The Autronic principle described uses electronics to automatically measure and control such variables as temperature, pressure, level, and flow. **(F-16)**

For better bleaching at higher speeds and lower operating costs, the answer is electronic control of the Becco J-box, according to a technical bulletin released by Minneapolis-Honeywell Regulator Co. Experiences of several large bleacheries are summarized in the report. **(F-17)**

Postage Will be Paid by Addressee

No Postage Stamp Necessary If Mailed in the United States

BUSINESS REPLY CARD
FIRST CLASS PERMIT No. 64 (Sec. 34.9 P. L. & R.) NEW YORK, N. Y.

TEXTILE WORLD
330 W. 42nd Street
New York 36, N. Y.

McGraw-Hill Publishing Co., Inc.

Postage Will be Paid by Addressee

No Postage Stamp Necessary If Mailed in the United States

BUSINESS REPLY CARD
FIRST CLASS PERMIT No. 64 (Sec. 34.9 P. L. & R.) NEW YORK, N. Y.

TEXTILE WORLD
330 W. 42nd Street
New York 36, N. Y.

McGraw-Hill Publishing Co., Inc.

Reader Service (Continued)

Nylon heat-setting processes that are gas fired are described in a bulletin issued by Minneapolis-Honeywell Regulator Co. Adaptability of the controls to other machines using the same or different heating mediums is also included. **(F-18)**

Can you use a portable baling press? If you can, you'll be interested in a leaflet that describes a press you may be able to use. No installation is required as the unit, offered by A. B. Andrews & Co., comes ready to operate. **(F-19)**

Know how many plastic parts are available for textile machinery? In addition to well-known loom sheaves, there are also cloth-roll bearings, binder bushings, binder-bushing shims, parallel blocks, spinning drives, idlers, twisters, and separators. All of these items are described in a catalog issued by National Plastics, Inc. **(F-20)**

A new-type harness that is practically all metal is described in a folder made available in the U. S. by H. J. Theller Corp. The new frames can be used in looms that have dobbies with a 10-mm pitch without the supporting staves being damaged by friction or vibration. **(F-21)**

Custom-engineered leather strapping is described in a folder published by J. E. Rhoads & Sons. The Bicut check strap is fully described; and there's also data on straight check straps, jack straps, lug straps, harness straps, and hold-up straps. A separate section is devoted to flat leather belting for textile drives. **(F-22)**

Stitched-canvas belting manufacture is described in a catalog prepared by O. R. Daniels, Inc. A data sheet that goes with the catalog gives money-saving and time-saving information on ordering, installing, operating, and maintaining stitched-canvas belts. **(F-23)**

Liquid sulfur dioxide, a versatile chemical reagent, is given a thorough going-over in a folder made available to TW readers by Virginia Smelting Co. Among the textile uses are in the Antichlor, hydrosulfites, and for naphthol printing, desizing, soaping, and mercerizing. **(F-24)**

Non-ionic surface-active agents—esters of glycerol, glycols, and polyethylene glycols—are fully described in a new booklet issued by Glyco Products Co., Inc. The chemicals are also used as emulsifiers, stabilizers, defoamers, penetrants, and plasticizers. **(F-25)**

Sanco Piece Dye Works, Inc., Phillipsburg, N. J., is featured in a recent issue of the Rohm & Haas *Reporter*. A camera trip through the plant is supplemented with technical facts about the company's methods. **(F-26)**

Resin emulsions that contain 40 to 45% solids are described in a leaflet made available by Hercules Powder Co. The low-priced resin dispersions are compatible with animal glues, starch, dextrins, corn and soybean proteins, water dispersions of phenol- and urea-formaldehyde resins, and casein. **(F-27)**

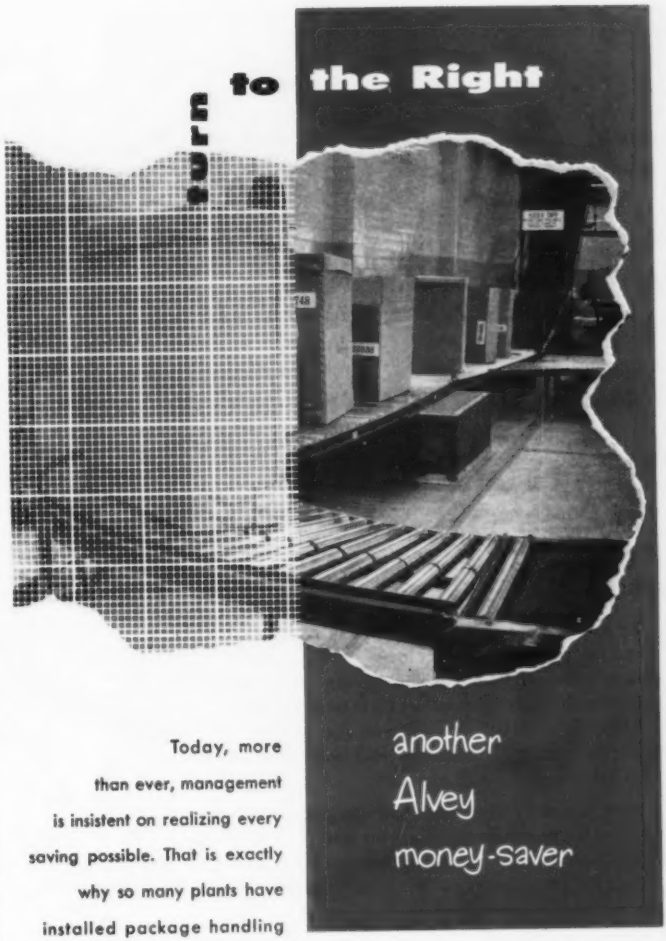
An eight-page pamphlet listing products made by Emkay Chemical Co. is now available. The brochure tabulates industrial uses of the products and also the chemical category into which each belongs. **(F-28)**

Caustic soda—all you need to know about this product is given in an 84-p. bulletin published by Allied Chemical & Dye Corp. A good set of standard conversions is also included in the book. **(F-29)**

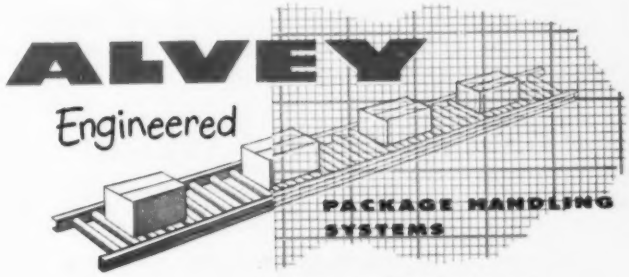
"Make sludge burnable." That's the advice given in a booklet you can get by filling out **F-30** on the Reader Service postcard. The booklet, put out by E. F. Houghton & Co., tells how an oil additive removes sludge from heating systems.

ENGINEERING & MAINTENANCE

Is your piping system efficient? Or have you been adding a line here and there



Today, more than ever, management is insistent on realizing every saving possible. That is exactly why so many plants have installed package handling conveyor systems . . . Alvey Conveyors, engineered for the particular requirements of each specific job. Write, and an Alvey Engineer will cooperate with your engineering staff. Do this today.



ALVEY CONVEYOR MFG. CO.
9305 Olive Street Road, St. Louis 24, Mo.

For more information, write direct or use Reader Service post card.

Guides to...

HIGHER PROFITS

ARE MADE FROM

"LINDE" SYNTHETIC SAPPHIRE
Trade-Mark

By using sapphire at critical points in your equipment, you can cut yarn reject losses and maintenance costs to a surprising low. Sapphire has three properties that make these savings possible: (1) It takes and holds a high polish; (2) It's homogeneous (non-porous)—can't fray yarns; (3) It resists wear and corrosion remarkably well.

More and more technicians are changing over to sapphire textile guides to protect the quality of their yarns. More and more producers find that their yarns "drag" less over sapphire guides than over any other guides they have ever used. A large rayon spinner reports *twelve years* of trouble-free service from sapphire guides in locations where other guides failed in a *few months*. It all adds up to higher output, better quality, and lower cost per pound of yarn.

"Linde" synthetic sapphire materially increases the life of your guides. Let us show you how. We'll be glad also to help you with the design and testing of standard or special sapphire guides for your plant.

Write today to the Synthetic Crystals Department.

LINDE AIR PRODUCTS COMPANY

A Division of Union Carbide and Carbon Corporation

30 East 42nd Street UCC New York 17, N. Y.

The term "Linde" is a registered trade-mark of Union Carbide and Carbon Corporation.

Reader Service (Continued)

until you don't know what you have? There's a good booklet, made available by Huffman-Wolfe Co., that tells what that company can do, piping-wise. **(F-31)**

Air systems for the textile industry are presented in a bulletin from J. O. Ross Engineering Corp. The company covers the field of heating, ventilating, drying, cooling, and conditioning. **(F-32)**

The core of good materials handling is time and place utility, according to a booklet issued by Clark Equipment Corp. A series of techniques outline best procedures from the receiving dock through storage, processing, assembly, and warehousing to final shipping. **(F-33)**

Electric trucks with capacities from 1,000 to 100,000 lb. are featured in a brochure released by The Yale & Towne Mfg. Co. If you're wondering what size of truck you need and would like to figure it out yourself, there's a table on lift-truck selection. **(F-34)**

"What Makes It Tick" is the title of a booklet published by Towmotor Corp. The booklet is a thorough, non-technical analysis of the construction features of the company's line of fork-lift trucks. You can get the booklet by filling out **F-35**.

Limit switches. Three new publications that cover rotating-type, lever-type, and track-type limit switches have been prepared by General Eelectric. Each publication contains descriptive and application information, switch ratings, and a number of photographs and dimension drawings. **(F-36)**

A big line of fans and blowers is described in a catalog issued by Standard Electric Mfg. Co. Among the products covered are ventilating fans, air circulators, exhaust fans, floor and window fans, spray-booth fans, and pressure and volume blowers. **(F-37)**

Clamp trucks—trucks that put the bite on boxes, crates, baskets, and other packages—are shown in a bulletin issued by Food Machinery & Chemical Corp. A foot pedal operates the clamp arms that grip the containers. **(F-38)**

A new light source, fluorescent mercury lamps, is presented in a folder from Westinghouse Electric Corp. The 400-w. quartz-mercury lamp is said to give a color that is as good as that provided by a combination of mercury and incandescent light on an equal-wattage basis. **(F-39)**

A whole new horizon in the materials-handling field has been opened up by the electric tiering truck, according to a leaflet published by The Raymond Corp. Pallet-stacking models, with or without telescoping masts, are available in capacities of 2,000 and 3,000 lb. **(F-40)**

A large cutaway illustration of a pilot-operated regulating valve is the highlight of a bulletin issued by Spence Engineering Co., Inc. A panel in the bulletin shows how the control function of a regulator can be changed by using a different sensitive pilot. **(F-41)**

Heat-exchangers. Basic components—heads, shells, and tube bundles. Presented so that you can pick out the kind you need. Special emphasis on tank heaters and fuel-oil heaters. Issued by Superior Combustion Industries, Inc. **(F-42)**

Industrial lubrication equipment in a wide range of applications is presented in a bulletin issued by Alemite. Two types of automatic-lubrication systems are described—Accumeter and Oil-Mist. **(F-43)**

Vibration control can reduce maintenance costs, increase building life, and permit more efficient plant layouts—so says a booklet put out by The Korfund Co., Inc. Springs, rubber, and cork can be used either singly or in combination. **(F-44)**

GENERAL

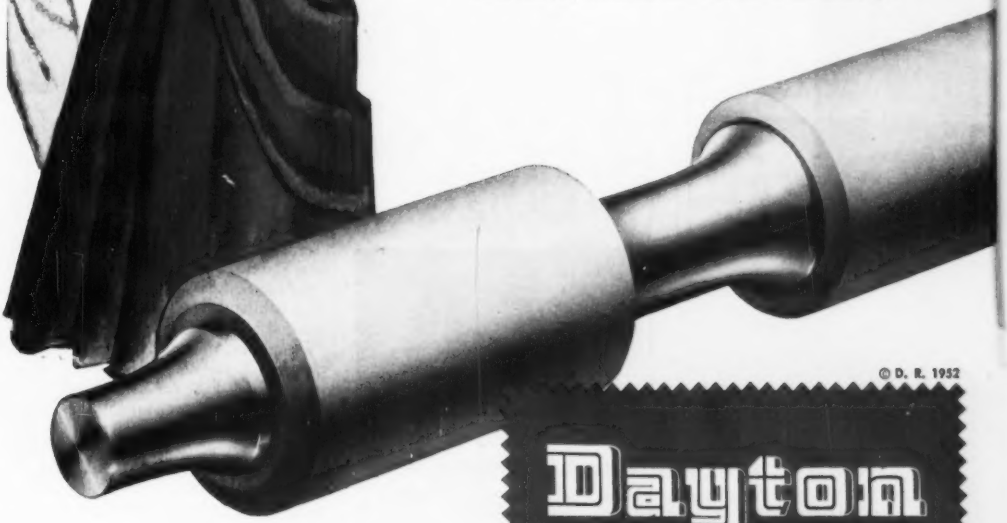
How to determine sewing costs quickly and easily is the subject covered in a

First Choice!

and no wonder...

. . . The Dayco Cot's "super" fiber repellence makes it a big hit with millmen—no matter what fibers they're spinning! For whether you spin cotton, wool, blends or synthetic fibers, you'll find the Dayco Cot means fewer lap-ups, fewer ends down, cleaner yarn. And its better wearing qualities make it *outlast* any ordinary roll covering you've ever used.

Here's what *users* say: "Already outlasted the type of cot we were using, and good for years more" . . . "roll replacement is minimized" . . . "They spin perfect yarn right from the go, even on Monday morning startups!"



© D. R. 1952

See for yourself—put Dayco Cots on your frames, for the long pull ahead. Ask your salesman or: Dayton Rubber Co., Textile Div., Woodside Bldg., Greenville, S.C.

Dayton Rubber

Since 1905

TEXTILE PRODUCTS FOR BETTER SPINNING AND WEAVING

Install looms FASTER... EASIER...

and cut operating costs besides with **ISOMODE TEXTILE PADS**

ISOMODE* TEXTILE PADS permit you to install looms on any type floor without bolting, floor damage or special preparation. Cut to size and placed under legs of equipment, they absorb loom vibration and eliminate stresses and strains resulting from rigid mountings. This keeps machines in place, even without cementing—reduces noise—cuts down maintenance of both building and equipment.

Engineered from Du Pont "Neoprene", Isomode Pads last for years. Mill installations have revealed that not only are they one of the most effective mountings you can get, but also one of the most economical.

Even a few looms mounted on Isomode Textile Pads are enough to show you convincing proof of the Pad's remarkable effectiveness. Why not see for yourself? Get more details by mailing in the coupon.

*Trade Mark Reg. U.S. Pat. Off.

THE MB MANUFACTURING COMPANY, INC.
1084 State Street, New Haven 11, Conn.

☐ Please send data sheet containing more information on Isomode Textile Pads and how to install them easily and quickly. ☐ Send price sheet and delivery date.

NAME _____ TITLE _____

COMPANY _____

ADDRESS _____

Distributed by: MATTHEWS EQUIPMENT COMPANY, Providence, R. I. • STANDARD MILL SUPPLY CO., New York, N. Y. • THE SATTERLEE COMPANY, Minneapolis, Minn. • R. B. DORMAN, Atlanta, Ga. O. D. LANDIS, Charlotte, N. C. • UPTON BRADEEN & JAMES, LTD., Toronto, Ontario and Montreal, Quebec

Reader Service (Continued)

special form prepared by Union Special Machine Co. The form tells you when sewing machines should be replaced. **(F-45)**

A year of achievement in electrical engineering is summarized in a recent publication of Westinghouse Electric Corp. The whole gamut—from power generation, transmission, and distribution through power utilization and research—is covered. **(F-46)**

Production-control systems and procedures are thoroughly presented in a 50-p. book from Remington Rand Inc. The book details a unique method of materials control that results in a shorter production-planning cycle and speeds production. **(F-47)**

Your cafeteria personnel will want to study a booklet on a new portable milk dispenser made by Vacuum Can Co. The new product banishes unsanitary methods of transferring, pouring, and ladling milk. Maybe you can buy milk in bulk and get it to your employees cheaper. **(F-49)**

New savings for punched-card users are detailed in an illustrated folder made available by Remington Rand Inc. The folder explains in chart form how users of punched cards can speed up and simplify the preparation of records and reports. **(F-50)**

Pointers for Supervisors

(Continued from page 159)

It Takes Faith—And Fortitude

Strange as this may appear in print, personnel people must have the faith and fortitude of the clergy. They must have confidence in their calling—but realize that not every one is interested in the kind of salvation they have to offer. Like the minister or the priest, they can't insist that all should enter heaven. The satisfaction of the personnel man is the quiet satisfaction of appreciating the truth of his philosophy and realizing that through his efforts the company has gone a step forward toward improving human relationships.

Personnel people must have the faith and patience of teachers; their satisfaction is of the same kind. The men who are successful today because of the influence of their teachers are too numerous to count—but which school teacher is credited for the success? The reward of the school teacher and the professional personnel man is the real satisfaction that he has helped, although the doing may be that of others.

In one sentence, the key to a successful personnel-supervisory relationship might be this: The personnel department may furnish the script, the props, and the coaching, but it's the supervisor who runs the show. And it's a wise showman who takes full advantage of his authors, his stagehands, and his directors.

Always Uniform

Whether it's in shooting or slashing . . . reliability depends as much on what you use as how you use it.

The Keever aim for many years has been to keep Victor Mill Starch at unvarying top quality. Better penetration, stronger warps, less shedding in high-production mills are often due to Victor Mill, "The Weaver's Friend" . . . and the conscientious help of the Keever man who serves you.

TEXTILE SALES DIVISION
1200 WOODSIDE BUILDING
GREENVILLE, SOUTH CAROLINA
Charles C. Switzer, Manager

THE KEEVER STARCH CO. ★ GENERAL OFFICES ★ COLUMBUS 15, OHIO

Corn, wheat and other grain products for industry since 1898

For more information, write direct or use Reader Service post card.

SPECIAL
TEXTILE
BRUSHES

MADE FOR YOU BY... Fuller

Thousands of textile men have found that Fuller textile brushes are their best buy, dollar for dollar. A test will convince you that the superior construction and better materials of Fuller textile brushes will cut *your* maintenance costs.

FIBER BROOM

6M-015 Especially adapted to textile sweeping. Light weight, wide flare. One row of stitching. 10" trim, 54" overall. Not affected by oil, water or chemicals.

FINGER BRUSHES

1220 Stiff black horsehair, twisted-in wire. Tapered wood handle. 12½" overall . . . 2½" trim.

L-087 Soft grey hair, twisted-in-wire. Flat steel ferrule 1" wide. 12" overall . . . 2¼" trim.

LOOM DUSTERS

8225 Fullergript construction. Metal back is indestructible in normal use. Best grade black horsehair. 15" overall, 6" x 2¾" brush face, 2¼" trim.

3208 Soft grey hair staple-set in solid wood block. 14" overall, 6" x 2¾" brush face, 2⅛" trim.

COMBINATION BRUSH . . . COMBER, RAIL OR LOOM

MU-031 Fullergript construction. Mixture of grey horsehair and fiber. 21" overall, 7" brush part, 2⅞" trim.

ROLLER BRUSHES

MX-043 Fullergript construction. Black nylon. 12" overall, 6½" brush part, 4" handle, 1" trim.

8235 Black hair. Double blade, 8¼" overall, 3-5/16" brush part, ¾" trim.

HUMIDIFIER BRUSH

A-847 Stiff black hair, twisted-in-wire. 11¼" overall, 4" brush part, 7¼" wire handle, 1-¾" diameter tapering to ½" at front end.

These are but a few of the brushes made especially for the textile industry. For further information on the complete line of textile brushes, write to . . .

At home... in business, too

3594 MAIN ST., HARTFORD 2, CONN.
In Canada: Fuller Brush Co., Ltd., Hamilton, Ont.

Questions AND Answers

Figure Fabric Count From Yarn Diameters

Technical Editor:

Is there a table of yarn diameters for various counts for the purpose of figuring the number of ends per inch in fabrics of various constructions?

Or is there a practical rule of thumb that I could follow? (9509)

There is no table that we know of, but there is a rule that you can follow.

Yarn Diameter

A simple method of calculating the approximate diameter of common textile yarns is to extract the square root from the yards per pound and to deduct the following:

7% for cotton, spun rayon, and spun silk
10% for worsted
16% for woolen

There is no deduction for continuous-filament yarns.

Example: Diameter of 100-den. viscose:

$1 \div \sqrt{44{,}645} = 1 \div 211.3$. This means that the diameter is 1/211.3 in.

Diameter of 20/ spun rayon:

$1 \div \sqrt{8400} = 1 \div 91.65$. $(1 \div 91.65) \ 93\% = 1 \div 85.23$. This means that the diameter is 1/85.23 in.

Knowing the approximate diameter of a yarn, the fabric technician may readily get an idea as to how many ends of a given size can be put in an inch of cloth without overlapping to obtain the maximum coverage with the minimum end count.

Fabric Construction

The following is based on a square cloth, i.e., a cloth that has the same number of ends and picks per inch, both of the same size and type and both with the same amount of bend, warp and filling-wise.

The determination of the maximum number of ends must take into consideration three factors:

1. Yarn diameter
2. Weave
3. Fabric balance

A certain number of yarns can lie in an inch without a weave. When the weave is introduced, the yarns of one system interchange with the yarns of the other system.

If a warp yarn changes from a riser

For more information, write direct or use Reader Service post card.

Swing to—

BOGER & CRAWFORD
SPUN NYLON YARN!

The quality of Boger & Crawford yarn is guaranteed—the highest tribute we can pay it.

SIGNED Frederick Boger

"SWING" is in the air!

. . . to Boger & Crawford spun nylon yarn! 60/2 and 80/2 ply.

Ideal for weaving and knitting!

Sweater . . . skirt . . . stockings . . . by "courtesy" of B & C spun nylon yarn! Available in 20 wonderful fast colors. Color fastness equal to or better than Synthetic Fiber Test #1 and #2 AATCC.

Write for free samples of colors today!

BOGER & CRAWFORD

K & E. Venango Sts. • Philadelphia 34, Pa.

ROTARY UNIONS

(Trade Name)

A REVOLVING STEAM CONNECTION

Pipe sizes ¼" through 3"

Mechanical Maintenance . . . Zero

You eliminate a lot of expenses when you install ROTARY UNIONS on your slashers, dry cans, calenders, embossers, and printing and coating machines.

You eliminate high installation costs. ROTARY UNIONS are self-contained units with built-in flexible hose connections. They need no complicated piping and brackets and can be installed in less than 15 minutes.

You eliminate adjustment and maintenance costs. ROTARY UNIONS are *guaranteed* to need no such attention for one year and many have run three years without it. You eliminate replacement part costs, repacking, down-time, and trouble.

Install ROTARY UNIONS in place of stuffing boxes, packing joints, or steam joints and cut your mechanical maintenance to zero. Write Department 4W for full information.

Deliveries from stock.

"Where *Good Connections* Count"®

PERFECTING SERVICE COMPANY

332 Atando Avenue (Home Office and Factory) Charlotte, N.C.

Offices in Chicago, Cleveland, Philadelphia, Providence, New York, Montreal, Toronto

Questions and Answers

(Continued)

to a sinker, it must pass between the filling yarns. In making this change, the yarn requires space dependent on the diameter of the yarn.

For example, in a plain weave the repeat is two yarns and two interlacings. In a plain fabric two yarns require the space of four diameters. To produce a practical fabric, you can see that only 2/4 of the maximum number of yarns without a weave can be used.

In a 2x2 twill, the repeat is four yarns, and there are two interlacings per repeat. A repeat of this weave requires four plus two (or six) diameters, and the actual number of yarns in a repeat is 4/6 of the space required. The maximum texture in a perfectly balanced twill would be 4/6 or ⅔ of the number of yarns that lie in 1 in. without a weave.

Example: 100-den. viscose yarn to be woven into a plain-weave fabric
100 den. = 44,645 yd. per lb.
Square root of 44,645 = 211.3

The repeat and interlacings of a plain weave total four. Two yarns require the space of four diameters; so the maximum number of yarns that can be employed in a square construction would be 2/4 or ½ of 211.3, which would give a construction of 105.6x105.6. Since one-half an end cannot be used, the most logical construction would be 106x106.

However, if a square construction is not desired and you want a fabric with only 72 picks, the yarns that are not used in the filling can be added to the warp. In other words, 106—72 = 34; the 34 ends can be added to the warp to obtain a construction of 140x72.

Trends in Loom Design Point Up Versatility

Technical Editor:

What is the trend in modern U. S. loom design and development?

What have been the outstanding U. S. loom developments in the past five years? (9510)

The trend in loom design is toward a loom that will weave a wide variety of fabrics with little change of mechanisms. An example is the Draper XD, which is adaptable to rayon, silk, or cotton in a wide range of constructions.

Crompton and Knowles has adopted a girt construction that makes the frame more rigid and reduces vibration. Their S-6 looms have been re-

TAIT MILL USES SEALATEX... "ONE OF THE BEST INVESTMENTS WE EVER MADE"

TAIT YARN COMPANY, INC.
COMBINATION YARNS
LINCOLNTON, NORTH CAROLINA

October 31, 1951

Masury Young Company
76 Roland Street
Boston 29, Mass.

Gentlemen:

Regarding your product SEALATEX: As you know, the floors throughout our entire plant are sealed with SEALATEX. We have both wood and cement floors.

We are highly pleased with the results from Sealatex, and consider it one of the best investments we ever made. Every Textile Plant, regardless of type, size and kind of floors, should seal their floors with Sealatex, it means so much; preservation of the floors; control of dust; prevents penetration of grease into floor; reduced damage to products being produced, etc.

We are also well pleased with the Service that your field man has given us. He came in and assisted us in cleaning and sealing our floors, and has helped in every way possible to improve the condition and appearance of our floors.

Very truly yours,
TAIT YARN COMPANY, INC.
A. L. Tait
A. L. Tait, President

ALT/js

You too can gain these benefits. Write today for complete information.

MYCO PRODUCTS

MASURY-YOUNG COMPANY

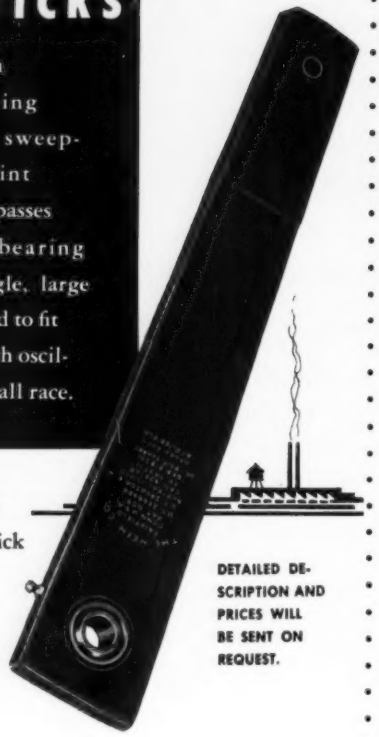
76 ROLAND STREET
DEPT. 39
BOSTON, MASS.

BRANCH OFFICES

NEW YORK	11 WEST 42ND ST.	KANSAS CITY	950 DIERKS BUILDING
CHICAGO	10 SOUTH LA SALLE ST.	DETROIT	424 BOOK BUILDING
LOS ANGELES	440 SEATON ST.	ST. PAUL	425 EAST 8TH ST.
SAN FRANCISCO	465 CALIFORNIA ST.	PORTLAND, ORE.	2319 N. B'WAY
	JACKSONVILLE, FLA.	P. O. BOX 3412	

HEIM
Unibal
SWEEPSTICKS

There is a Heim Spherical Bearing built into this sweepstick at the point where the stud passes through. This bearing consists of a single, large ball which is bored to fit the stud, and which oscillates in a bronze ball race.



This construction eliminates jerky pick action because there is no slack to be taken up due to an enlarged stud hole.

The result is a smoother and softer pick action, longer-lasting sweepsticks, and less operating down-time and production losses.

DETAILED DESCRIPTION AND PRICES WILL BE SENT ON REQUEST.

Replace your worn-out sweepsticks with the HEIM Unibal Sweepstick—

It pays for itself

THE HEIM COMPANY
FAIRFIELD, CONNECTICUT

Questions and Answers

(Continued)

designed to weave silk, acetate, rayon, and other synthetic fibers. Roller bearings and vacuum control of filling ends are some of the improvements. Their W-2 and W-3 looms have also been redesigned to include a full automatic let-off, more roller bearings, girt-frame construction, and automatic lubrication.

Another new development is the C&K W-3 woolen and worsted all-purpose loom. This loom may be converted to operate as a 4x1 automatic or a 4x2 automatic that will mix one color of filling—a single pick from each of three shuttles running in rotation. It may also be converted to run as a 4x4 non-automatic and pick-and-pick where up to seven colors of filling may be used.

Draper has adopted methods of making their loom frames more rigid and has built an overhead beam stand that will take a 32-in. beam flange.

Two of the most revolutionary loom developments are the Warner & Swasey Weaving Machine and the Unifil Loom Winder made by the Universal Winding Co.

The Warner & Swasey weaving machine weaves at 240 ppm. A number of these machines are being tested in different mills and reports indicate that the results are good.

The Unifil Winder was shown for the first time at the Atlantic City Textile Exposition and created considerable interest. The winder was incorporated on a Draper loom. By winding the filling at the loom and stripping the empty bobbins, this device eliminates the necessity for stocking a large number of bobbins and also reduces labor requirements.

Solvent-Soluble Size Ideal for Small Slashing Need

Technical Editor:

Our supply of 7-turn rayon has been cut off, and we now must use 3-turn yarn. Since we have only ten looms, we can't justify purchasing a big slasher.

Should we try to get a small slasher or buy a twister to put additional turns in our yarn?

Do you have any other suggestions on how we can get this yarn to run decently? (9513)

Warp slashing no doubt would be the more desirable practice to adopt when substituting a 3-turn yarn for a 7-turn yarn. On the other hand, since you have only ten looms to serve, only a very small fraction of a 3-cylinder slasher capacity would be used, so that the ultimate cost of slashing would probably be as high,

For more information, write direct or use Reader Service post card.

If you require an economical dry

SOURCE OF SO_2

As a Reducing Agent or
As an Antichlor...

Investigate this Dependable

GENERAL CHEMICAL PRODUCT

ANHYDROUS SODIUM BISULFITE

(Sodium Metabisulfite)

97.5% $Na_2S_2O_5$ (available SO_2: 65.5%)

Leather—for chrome tanning; for bisulfiting of tannin.

In Photography—for fixing solutions.

Textiles—for bleaching wool; antichlor after bleaching with hypochlorite; rayon manufacture.

Water Treatment—as an antichlor.

Food Processing—for sulfiting fruits and vegetables.

Readily available for prompt shipment from coast-to-coast distribution points. For further information, phone or write any General Chemical office listed below.

GENERAL CHEMICAL DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 Rector Street, New York 6, N. Y.

Offices: Albany • Atlanta • Baltimore • Birmingham • Boston • Bridgeport • Buffalo • Charlotte Chicago • Cleveland • Denver • Detroit • Houston • Jacksonville • Kalamazoo • Los Angeles Minneapolis • New York • Philadelphia • Pittsburgh • Providence • St. Louis • San Francisco Seattle • Yakima (Wash.)

In Wisconsin: General Chemical Company, Inc., Milwaukee, Wis.

In Canada: The Nichols Chemical Company, Limited • Montreal • Toronto • Vancouver

BASIC CHEMICALS
GC
FOR AMERICAN INDUSTRY

The time is *NOW*... *BETTER* Your Looms with Stehedco and Southern the *BETTER* Loom Harness Equipment

Yes . . . the time is NOW! And, as American Industry swings into full capacity production to meet the demands created by the impending crisis . . . massed humanity throughout a civilized world waits with abated breath and a hope that the results of our efforts will not be "too little and too late."

The *Textile Industry* shoulders a grave responsibility in this emergency. Mills must reach with all possible speed a maximum of production . . . the flow must be constant. Men and machines must now accomplish the impossible . . . day after day.

To accomplish this tremendous weaving task, we place at your service the complete engineering experience and facilities of our five large plants—spread throughout the nation where STEHEDCO and SOUTHERN—mill trained field representatives await your call.

These engineers will recommend the proper harness to REVITALIZE OLD LOOMS. They'll explain why new, modern high speed looms require top quality STEHEDCO and SOUTHERN Loom Harness Equipment to assure . . . fast . . . uninterrupted . . . FIRST RUNS. We've been doing this job through every crisis . . . since 1898. That is why today 9 out of every 10 mills depend on STEHEDCO and SOUTHERN LOOM HARNESS EQUIPMENT TO . . . WEAVE THE WORLD'S NEEDS.

STEEL HEDDLE MFG. CO.
2100 W. ALLEGHENY AVENUE PHILADELPHIA 32, PA.
Other Offices and Plants
Greenville, S.C. • Atlanta, Ga. • Greensboro, N.C. • Providence, R.I.
SOUTHERN SHUTTLES Paris Plant... Greenville, S. C.
A Division of STEEL HEDDLE MFG. CO.
STEEL HEDDLE COMPANY OF CANADA LIMITED
310 St. Hubert Street Granby, Quebec, Canada

Questions and Answers

(Continued)

perhaps higher, than that incurred in increasing the twist from 3 to 7 turns.

What about having the warp slashed by firms whose business is to do slashing on commission?

The next approach that comes to mind is to buy the 3-turn yarn on cakes and size those cakes with a suitable formulation before winding the yarn. A gelatin or any other suitable product soluble in water is simple enough to apply to the cakes. However, cake drying demands dryers which, if not available, are costly to purchase.

A solvent-soluble size that is easily applicable to cakes and requires no drying appears to be the best solution to your problem. It is true that the performance of cake-sized yarn will not be quite comparable to that of a slashed warp. However, the improvement may be sufficient to assure good loom efficiency.

Working Allowance for French Crepe Is 10%

Technical Editor:

What working allowance should we have for a French-crepe acetate warp with 98 picks in the grey? Will 6% be sufficient if the fabric is finished with 104 picks? (9514)

A widely accepted trade practice is to allow 10% for the dyeing and finishing of French crepe.

This allowance covers two items:

1. The loss in yardage resulting from having more picks per inch in the finished goods than in the grey goods.

2. Further losses due to cutting of the seams, matching, elimination of sections adjacent to leaders, and the seemingly unavoidable loss caused by unexpected damage.

In your specific case, the increase in picks from 98 in the grey to 104 dyed and finished will absorb ⅜ of the allowance, and the 6% on top of that will probably be sufficient.

Answers to Textile Quiz Appearing on Page 178

1. d [TW, Feb. '52, p. 4]
2. a [TW, Feb. '52, p. 126]
3. b [TW, Feb. '52, p. 131]
4. a [TW, Feb. '52, p. 132]
5. c [TW, Feb. '52, p. 138]
6. c [TW, Feb. '52, p. 143]
7. d [TW, Feb. '52, p. 147]
8. a [TW, Feb. '52, p. 161]
9. b [TW, Feb. '52, p. 169]
10. c [TW, Feb. '52, p. 294]

Books of Interest

Illustrated Uses for Graphic Recorders

GRAPHIC ROUTES TO GREATER PROFITS by John Walter Esterline; The Esterline-Angus Co., Indianapolis, Indiana; cloth, 320 pages, $3.00.

This is a well-illustrated text on some proved uses of graphic recording instruments. Modern finishers and dyers may find it useful in standardization of processes where the time vs. temperature curves are all-important.

Dyestuff Manufacture And Application

THE CHEMISTRY OF SYNTHETIC DYES, Vol. I, by K. Venkataraman; Academic Press Inc., 125 East 23rd St., New York 10, N. Y.; cloth, 704 pages, $14.50.

The author has attempted to compile in two volumes all pertinent information relative to the manufacture and use of dyes.

If the reader has a fairly good background of basic chemistry, the work should be of much value.

The practical dyer will find the descriptive material on dye intermediates and molecular construction of dyestuffs extremely useful. The selection of dyestuffs for trial on the newer synthetics is based on the presence and position of specific groups in the dye molecule.

Numerous footnotes and references lend authority to Dr. Venkataraman's recognized ability.

Supervisor-Training Program Outlined

HOW TO SUPERVISE PEOPLE, 3rd Edition, by Alfred M. Cooper; McGraw-Hill Book Co., 330 West 42nd St., New York 36, N. Y.; cloth, 254 pages, $3.75.

Eleven chapters cover well the subjects from training of the supervisor to the most important end-result of good supervision, the problem of maintaining good labor relations. The in-between chapters bear on other important supervisory functions.

Any textile management team could profit greatly from a group study course based on Mr. Cooper's work.

New Fiber Identification Manual

IDENTIFICATION OF TEXTILE MATERIALS, by The Textile Institute, 10

Stehedco and Southern

The Products That Weave The World's Needs

ANOTHER Stehedco PATENTED FEATURE

Included among the 200 patent grants awarded to the Steel Heddle Mfg. Co., is one for the T-12 Slide Hook, illustrated.

Outstanding in service, the STEHEDCO T-12 is the best and most efficient Slide Hook on the market today. The T-12 reduces binding on the bar, because it has a longer bearing surface for the most FREE SLIDING.

SELF ADJUSTING, it permits minimum separation of heddle and is longer wearing . . . more economical.

Test the T-12 and find out what real slide hook satisfaction is.

1-1-25

STEEL HEDDLE MFG. CO.

2100 W. ALLEGHENY AVENUE PHILADELPHIA 32, PA.

Other Offices and Plants

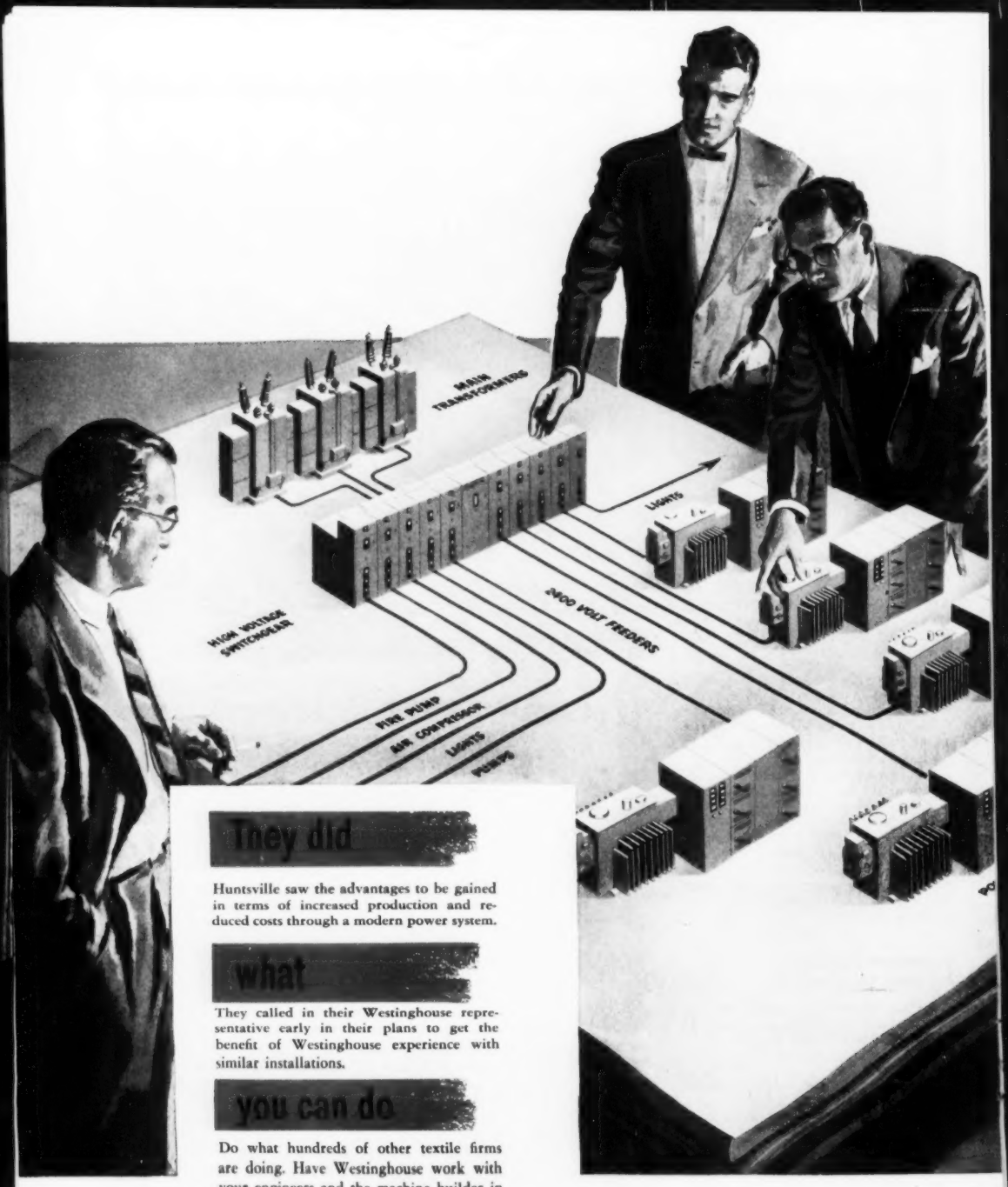
Greenville, S. C. • Atlanta, Ga. • Greensboro, N. C. • Providence, R. I.

SOUTHERN SHUTTLES Paris Plant . . . Greenville, S. C.

A Division of STEEL HEDDLE MFG. CO.

STEEL HEDDLE COMPANY OF CANADA, LIMITED

310 St. Hubert Street Granby, Quebec, Canada



They did

Huntsville saw the advantages to be gained in terms of increased production and reduced costs through a modern power system.

what

They called in their Westinghouse representative early in their plans to get the benefit of Westinghouse experience with similar installations.

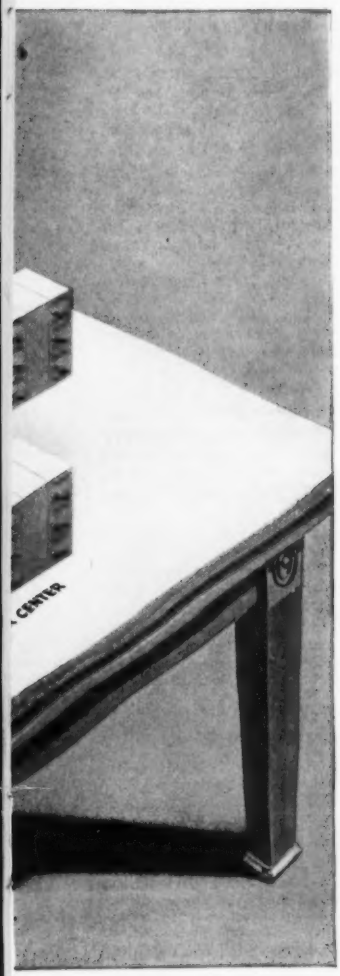
you can do

Do what hundreds of other textile firms are doing. Have Westinghouse work with your engineers and the machine builder in applying equipment to your plant.

to produce more

Whether it's more dependable and efficient electrical distribution like this, a new drive, better servicing, or simply the application of a piece of electrical equipment to do a tough job—Westinghouse has the answer.

Modernized Power System saves money, stops plant-wide shutdowns



If an outdated power system is slowing your production and boosting power bills, here's an idea. M. Lowenstein & Sons had this problem in their Huntsville Manufacturing Company's cotton mill. So they had Westinghouse help design a new system and supply modern apparatus. Here are the results:

In six months: One minor stoppage

With their old system, every electrical storm caused power stoppages throughout the Huntsville plant. Now however, any one electrical fault affects *only 5% of the mill.* In the first six months, with the new system there was just one power shortage. It affected only a small portion of the mill and lasted only 10 minutes!

Cuts $1,000 from monthly power bill

By distributing power more efficiently, the new system cuts the load demand from 5300 kw to 5100 kw. Figuring power cost at 1¢ per kwhr, this saves about $350.00 per month. Even more important, the power factor has been boosted from 80% to 88%—eliminating a $600.00 monthly penalty charge for low power factor.

Makes maintenance safe and easy

Dangerous open switchgear and overhead power lines have been eliminated in the new system. Power conductors now pass through underground ducts, with one phase wire in each duct. If trouble occurs, a ground-detector immediately tells the maintenance man which conductor has faulted. There's no more laborious searching.

Call Westinghouse for system help

If an outdated power system is costing you money, have your engineers get in touch with your Westinghouse office. And if you're planning a new plant, have Westinghouse help design an efficient system right from the beginning. For more information now, write for B-4045, "Industrial Plant Distribution Systems". Westinghouse Electric Corp., Box 868, Pittsburgh 30, Penna. J-94876

YOU CAN BE SURE... IF IT'S

Westinghouse

EQUIPMENT FOR TEXTILE PRODUCTION

Fielden INSTRUMENTS AND CONTROLS

"UPS" SLASHER PRODUCTION LOWERS HUMIDITY IN WEAVE SHED

Photo courtesy American Viscose Corporation

An important mill weaving synthetic yarn was running 90-95% R. H. in its weave shed. It had no moisture controls on its slasher.

Then it installed a Fielden Drimeter and Automatic Control. By automatically *leaving the correct moisture in the warp* instead of overdrying it and trying to replace the lost moisture in the weave shed, the mill was able to lower by a considerable percentage, weave shed humidity. Slasher production was increased nearly 50%, and there were far fewer ends down in the weave shed.

If you have no moisture control on your slasher, in all probability slasher production can be materially increased, the R. H. in your weave shed can be reduced and you can make a significant decrease in ends down. We will be glad to give you the facts and figures without obligation.

EASY TO CALIBRATE

Fielden Drimeters and Automatic Speed Controls are easy to calibrate. Simply "zero" the instrument on the dry warp that has laid on the cans at the beginning of a run!

There's no need to make a tentative setting, then run off a length of warp, cut off a sample and send it to the laboratory to have it bone-dried to determine the exact moisture content of the warp—with a chance of having to make additional tests till you get the setting right.

Fielden

INSTRUMENT CORPORATION
2920 NORTH 4TH STREET
PHILADELPHIA 33, PA.

a subsidiary of:

ROBERTSHAW-FULTON CONTROLS CO.

Books of Interest (Continued)

Blackfriars Street, Manchester 3, England; cloth, 94 pages, $1.50.

This is a revised and enlarged edition of the previous work. It incorporates information on the newer synthetics: Vinyon, Vinyon N, dynel, Orlon, Chemstrand (Acrilan), Saran, Velon, Terylene (Dacron), plus the older synthetics and natural fibers.

Excellent cross-sectional and longitudinal photographs are included, along with chemical and physical methods of identification.

Progress Report On Textiles

REVIEW OF TEXTILE PROGRESS, Vol. II, The Textile Institute and The Society of Dyers & Colourists, 10 Blackfriars Street, Manchester 3, England; cloth, 482 pages, $3.50.

The latest "Review" contains the work of 27 contributors of prominence in the British textile industry. The book is conveniently divided into 10 sections that cover all types of fibers and their processing into cloth.

Attention is given to the latest developments in dyeing and finishing of the newer synthetics. Late production figures on fibers and the chemistry of natural and synthetic fibers are included.

How To Write And Get Readership

THE TECHNIQUE OF CLEAR WRITING by Robert Gunning; McGraw-Hill Book Company, Inc., 330 West 42nd St., New York 36, N. Y.; cloth, 289 pages, $3.50.

This book is aimed at the writer who has difficulty in getting to the "meat" of his subject. It shows the way to clear expression, readability, and what the author calls "fog elimination."

Writers of technical papers, reports, advertisements, editorials, etc., who really would like to get their papers read, should study and utilize Mr. Gunning's book.

British Text On Laboratory Procedures

TEXTILE LABORATORY MANUAL, Second Edition, by Walter Garner; Chemical Publishing Co., Inc., 26 Court St., Brooklyn 2, N. Y.; cloth, 574 pages, $8.50.

This British text attempts to bring about in less than 600 pages a range of analytical and testing methods sufficient to help a laboratory investigate further most of the problems likely to be encountered in a textile mill. Tests described include the following subjects: wool and hair fibers, vegetable fibers, filament fibers, quantitative fiber analysis, strength and stretch tests, yarn and cloth properties, insulation, sizes and finishes, detection of metals, color, dyestuffs, detergents and wetting agents, oils, etc.

Being a second edition, this text (now available for the first time from a U. S. publisher) contains 92 more pages than the original.

NAPHTOLATE SOLUTIONS

newest addition to the naphtol family...

Many of the more important Naphtols are now available in solution form.

These solutions have all the attributes of the parent Naphtols from which they are derived.

Naphtolate Solutions save time, labor, solvents and oil.

The practical advantages of Naphtolate Solutions are obvious.

Naphtolate Solutions are well worth investigating.

Our nearest office will supply the information.

GENERAL DYESTUFF CORPORATION
435 HUDSON STREET • NEW YORK 14, NEW YORK
BOSTON • CHARLOTTE • CHICAGO • PHILADELPHIA • PORTLAND, ORE. • PROVIDENCE • SAN FRANCISCO

FOR ALL-YEAR-ROUND
SWEATER SALES . . .

LEIGHTON

FOR
SALES FLEXIBILITY
USE **LEIGHTON** KNITTING MACHINES

You have no slack sales-seasons for sweaters when you use Leighton Knitting Machines. Because Leightons are VERSATILE. They knit coarse and fine stitch sweaters for winter and summer.

For sports and general wear.

For twelve months in the year—year round SALES.

Note these advantages:

1. The most versatile knitting machine made . . . because of the big, roomy dial outside the knitting point.
2. The Leighton principle eliminates sharp bends in the yarn . . . making it possible to knit soft spun yarns with less breakage.
3. A wide range of yarn can be knit on the same machine without changing needle cuts. A distinct Leighton advantage.
4. Custom built to rigid specifications for long life and smooth continuous operation.

LEIGHTON MACHINE COMPANY
ESTABLISHED—1873

LEIGHTON

MANCHESTER NEW HAMPSHIRE
INCORPORATED—1894

TEXTILE WORLD'S

Guide to Exhibitors

KNITTING & ALLIED CRAFTS EXPOSITION

Grand Central Palace, New York -:- April 21 through 25, 1952

WHAT YOU'LL SEE AT THE SHOW

THE SECOND BIENNIAL Knitting and Allied Crafts Exposition sponsored by the National Knitted Outerwear Assn. and the Underwear Institute, Inc., will be held in Grand Central Palace, New York, N. Y., April 21 through 25.

Listed here and on the following pages are the exhibitors who will show machinery, yarns, and other supplies of interest to manufacturers of knitted underwear and outerwear. The exposition is a third larger than the first show two years ago.

Copies of this Guide to Exhibitors will be available for the convenience of visitors at TEXTILE WORLD's headquarters in Booth 74. We extend a cordial invitation to our friends to visit us during the exposition.

Show Hours

Monday, April 21—2 P. M. to 10 P. M.
Tuesday, April 22—10:30 A. M. to 10 P. M.
Wednesday, April 23—10:30 A. M. to 10 P. M.
Thursday, April 24—10:30 A. M. to 10 P. M.
Friday, April 25—10:30 A. M. to 4 P. M.

No floor plan of the mezzanine was available as this guide went to press, but several booths will be on the mezzanine. These include a joint Army and Navy exhibit of clothing, fabrics, and equipment used by all branches of the armed forces; the booths of the exposition's sponsoring groups, the National Knitted Outerwear Assn. and the Underwear Institute, Inc.; and the exhibits of Van Gelder Yarn Co., Inc., W. T. Lane & Bros., Inc., and Cummings-Landau Laundry Machinery Co., Inc.

Who and What at the Show

ADELAIDE MILLS (116B)
Anniston, Ala.
Features carded cotton yarns.
Representative at booth:
P. T. Roberts

ALAMAC KNITTING MILLS, INC. (75)
350 Fifth Ave., New York, N. Y.
Features cotton, rayon, nylon, wool, and Orlon knitted fabrics; Orlon jerseys; knitted denims.
Representatives at booth:
Max Thal
B. Fletcher

ALEXANDER ASSOCIATES (87)
3701 N. Broad St., Philadelphia 40, Pa.
Features all types of cotton and spun-rayon yarns and Nu-Slo carded knitting yarn.
Representatives at booth:
William A. Popp
James J. Collins
David Wood

ALLEN KNITTING MILLS, INC. (132A)
350 Fifth Ave., New York, N. Y.
Features cotton-interlock and worsted-jersey fabrics made by the Redmanized shrunk-to-fit process.
Representatives at booth:
Harry F. Goldman
Irwin Bendell
Al Lehrhoff
Joe Kreisler
Harvey Bernstein
Sanford Baskin
Murray Feldman

AMERICAN SAFETY TABLE CO., INC. (80-81)
224 Fifth Ave., New York 1, N. Y.
Features AMCO individual motor and stand with new-type bar mounting, the AMCO collar-shaping machine, the AMCO conveyor press, and the AMCO portable stand for butt seaming.
Representatives at booth:
David Frankel
Julian C. Frankel
Sam Wolff
Ben Greenawalt

AMERICAN SCHWEITER CO. (134)
22 Ashmont Ave., Whitinsville, Mass.

Features the Schweiter KM cone winder with gear-driven waxing apparatus.

Representatives at booth:
Hans J. Theiler
Hans Badertscher
Julius Steinberg
Herbert Steinberg

AMERICAN THREAD CO. (29-30)
260 W. Broadway, New York 13, N. Y.

Features a reception booth decorated in the style of a library of the early 1800's.

Representatives at booth:
Curtis E. Bowne
Walter J. Fluegel
Wilmer Brannon
E. H. Pretty
H. E. Roller
Harry Horrocks

AMERICAN VISCOSE CORP. (4-5-6)
350 Fifth Ave., New York, N. Y.

Features new applications of acetate tricot; rayon knit goods permanently stabilized by Avcoset; fabrics and finished garments made of acetate, rayon filament and staple, and Filatex elastic yarns; textile lubricants and waxes. A series of colored slides will show how tricot machines work.

Representatives at booth:
Harry L. Dalton
Daniel A. Davis
Frank F. Hilson
John C. Wilmerding
Malcolm V. Macfarlan
John C. Folsom
George L. Storm
Samuel B. Lippincott
Thomas H. Andrews
Herbert Simpson
Walter E. Scholer
Walter Hauer
Arthur F. Wachter
Max Winkler
Edgar S. Kennedy
Graeme G. Whytlaw
Walter Hadfield
Ralph L. Stimmel
Jackson A. Woodruff
Leslie L. Walmsley
James Sands
Arthur N. Tinsley
Herbert A. Clark, Jr.

AMERICAN WRINGER CO., INC. (113)
212 Clinton St., Woonsocket, R. I.

Features a reception booth.

Representatives at booth:
George R. Toney
Ervin J. Koerner

AMERICAN YARN & PROCESSING CO. (83-84)
Mt. Holly, N. C.

Features yarns and threads and new finishes on synthetic fibers.

Representatives at booth:
W. H. Suttenfield
W. S. Montgomery
Linn T. Howick
E. W. Wood
W. H. Hutchison

AMES WORSTED CO. (130)
Lowell, Mass.

Features Harriset-treated women's and men's sweaters, socks, hand knitting yarns and other worsted yarns, underwear, white and dyed top, and fabrics. A device for testing the degree of shrink resistance of wool in top form will be shown.

Representatives at booth:
John H. Gardiner
Norman L. Wilson
Harry E. Wasson

APEX KNITTED FABRICS INC. (A)
707 Broadway, New York, N. Y.

Features underwear and outerwear of cotton knitted fabrics.

Representatives at booth:
J. Rawlings
Jack Turner

BARBET MILLS, INC. (42-43)
350 Fifth Ave., New York 1, N. Y.

Features cotton-jersey knit goods used for all apparel and industrial trades; Barbetized, a water-repellent, non-oily, stain-resistant cotton jersey; and Barbalon, a plasticized cotton jersey that is waterproof, washable, permanently soft, odor-resistant, fire-resistant, and stain-resistant to acids and alkalis.

Representatives at booth:
C. A. Ross
Saul Ludwig
Mac Reibel
David Yablon
Hap Samel
Morton Goode

BARRE WOOL COMBING CO., LTD. (130)
298 Summer St., Boston, Mass.

Features sweaters, socks, hand knitting yarns, treated white and dyed top, and fabrics. Controlled shrink resistance will be emphasized.

Representatives at booth:
John M. Gould
Whitfield J. Moore

BAUSCH & LOMB OPTICAL CO. (88)
Rochester 2, N. Y.

Features the Ortho-Rater, a visual-performance testing instrument used to measure visual skills of personnel. A selection of magnifiers for the knitting industry will also be displayed.

Representatives at booth:
Russell E. Craytor
Robert H. Cook

BEAVER CLOTH CUTTING MACHINES, INC. (115)
336 W. 37th St., New York 18, N. Y.

Features cloth-cutting equipment, including the Beaver 50 straight knife with automatic sharpener; Beaver 2½-, 4-, and 5-in. rotary cutters; and Beaver Bulls-Eye cloth drill.

Representatives at booth:
J. R. Hoff
H. Hoehman
H. S. Hoff

BELDING CORTICELLI (114)
1407 Broadway, New York 18, N. Y.

Features sewing threads, Nymo bonded Monocord for underwear, lingerie, and corsets will be emphasized.

Representatives at booth:
Art Gross
F. H. Murphy
D. Reich
J. Walsh
J. Madoff
P. Murphy
B. Goldsmith
J. Hughes
T. McDermott

HANS C. BICK, INC. (35)
401 S. 13th St., Reading, Pa.

Features the Nylonizing process that gives nylon, acetate, and rayon fabrics greater softness, better drape, greater moisture absorbency, and greater resistance to abrasion. Women's Nylonized underwear, hosiery, dresses, and dress goods, and men's socks will be shown.

Representatives at booth:
Hans C. Bick
Robert S. Horn

S. BLICKMAN, INC. (62A)
536 Gregory Ave., Weehawken, N. J.

Features a nylon circulatory system, sample dye box, and small wares, including pails, buckets, and dippers.

Representatives at booth:
Bernard Blickman
E. H. Olsen
G. F. Langhirt

BRANT YARNS, INC. (116B)
1123 Broadway, New York 10, N. Y.

Features carded cotton yarns, zephyr wool yarns and novelty yarns, and rubber-covered yarns.

Representatives at booth:
Irving Brant
P. T. Roberts
Garry Warner
Elmer Marshall
Andre Kuyle
Leonard Roberts

H. BRINTON CO. (51-52-53)
Kensington Ave. and M St., Philadelphia 24, Pa.

Features large-diameter circular knitting machines for the underwear and outerwear industries; small-diameter circular knitting machines for the production of fancy knit gloves. Items to be shown include a 30-in., 24-feed interlock fabric machine, available from 9 to 14 needles per inch, that uses 1/30s nylon; Para-Plane drive on rib machines; double-end bobbin tables; and a 32-step selecting mechanism for knit gloves.

Representatives at booth:
H. W. Anderson
George McDowell
Joe Olachea
Thomas Pagdin
Spencer Sparks
Perry Parrott
Joseph Ballentine
Harry A. Strasberg

CARBIDE & CARBON CHEMICALS CO. (108)
30 E. 42nd St., New York, N. Y.

Features dynel knit goods and dynel yarns. Fabrics and knit goods of 100% dynel and of a variety of blended yarns, including dynel-Vicara and dynel-cotton, will be shown.

Representatives at booth:
L. Snyder
C. A. Strodl
F. C. King
H. S. Porter

CARON SPINNING CO. (86)
Rochelle, Ill., and Robesonia, Pa.

Features worsted and synthetic yarns. The exhibit will show the process of yarn manufacture.

Representatives at booth:
W. H. Stocking
Benjamin J. Zintak, Jr.

CLUETT, PEABODY & CO., INC., SANFORIZED DIV. (85)
10 E. 40th St., New York 16, N. Y.

Features Sanforlan knitted items that have been treated to control matting, felting, or shrinking.

Representatives at booth:
F. P. Ameli
C. C. Ware
R. J. Gentilhomme
R. D. Farmer

COMER-AVONDALE MILLS, INC. (136)
58 Worth St., New York 13, N. Y.

Features knitting and warp yarns of cotton, viscose rayon, and blends with Orlon, Vicara, and dynel.

Representatives at booth:
S. B. Terry
W. R. Austin
J. F. Sharp
Bruce C. Weber

COTTON YARNS CO. (B)
389 5th Ave., New York, N. Y.

Features cotton knitting, weaving, and thread yarns, natural, dyed, and mercerized.

Representatives at booth:
R. A. James
Robert J. Gurney
Nat Zank
Arthur Adelman
Edward Strauss

CROSS COTTON MILLS CO. (76-77)
Box 529, Marion, N. C.

Features knitting yarn, double carded and combed, bleached, direct, developed, vat, and naphthol dyed.

Representatives at booth:
Eugene Cross, Jr.
S. R. Cross
Oliver R. Cross
J. J. Davis
Sidney Cohn
Steve Cohn
N. R. Jacobs

CUMMINGS-LANDAU LAUNDRY MACHINE CO., INC. (Mezzanine)
305 Ten Eyk St., Brooklyn 6, N. Y.

Features stainless-steel washing machines, stainless-steel extractors, and reversing-type drying tumblers.

Representatives at booth:
Morris Landau
Eugene Cummings
Joseph Kligman
Ray Robinson

CUTTING ROOM APPLIANCES CORP. (128-129)
45 W. 25th St., New York 10, N. Y.

Features cloth-laying machines, metal sectional cutting tables, automatic thread trimmers, and cloth-measuring machines. Items to be shown include a 60-in. electric cloth spreader for double-fold tricot fabrics, equipped with static eliminator; and a 29-in. electric knit-goods spreader for tubular goods, equipped with mechanical hole detector.

Representatives at booth:
David Grossberg
Harold Liebman
Bernard Nathanson
Al Greene
Bernard Korn
Al Silfen
Leonard Schram
Sol Lerner

DAILY NEWS RECORD (95)
7 E. 12th St., New York, N. Y.

Features a textile publication.

C. R. DANIELS, INC. (109)
Baltimore 16, Md.

Features canvas baskets, hampers, and trucks and aluminum-frame hosiery carriers.

Representatives at booth:
William E. Carson
Jay S. Connelly
Robert F. Wayne

DEAN & SHERK CO., INC. (83-84)
Lawrenceburg, Ky.

Features cotton and synthetic sewing threads; novelty yarns; knitting, decorative, and resist yarns. Synthetic yarns, filament and spun, for knit goods, woven fabrics, and hosiery, dyed by the company's Hyperthermalized process, will be shown.

Representatives at booth:
G. W. Krentler
A. F. Roy
E. M. Hodgson, Jr.

DUBIED MACHINERY CO. (56-57)
11-30 45th Road, Long Island City 1, N. Y.

Features a new type DDD fully automatic double-lock machine for the production of trimmings, rib garments, and racked patterns.

Representatives at booth:
John G. Sandri
Ernest Hafner

E. I. DU PONT DE NEMOURS & CO., INC. (82)
Wilmington, Del.

Features fabrics and garments made of acetate, rayon, nylon, Orlon acrylic fiber, and Dacron polyester fiber.

Representative at booth:
E. E. Hyne

Guide to Exhibitors

EASTERN YARN MILLS, INC. (44)
1530 McDonald Ave., Brooklyn, N. Y.
Features novelty twisted yarns of Orlon and Dacron.
Representatives at booth:
Mark Leopold
Mac Hier
Sam Kimmel

EDMOS PRODUCTS CORP. (48-49-50)
15 Christopher Ave., Brooklyn, N. Y.
Features circular rib-knitting machines.
Representatives at booth:
Milton Moskowitz
Lawrence Reed
Julius Citron
Arnold Fried

ETABLISSEMENTS FRANCOIS MASUREL FRERES (116B)
Tourcoing, France
Features zephyr wool yarns and zephyr novelty yarns.
Representative at booth:
Andre Kuyle

FIDELITY MACHINE CO., INC. (138-139)
3908-18 Frankford Ave., Philadelphia 24, Pa.
Features three models of Fidelity multi-design ribbers, including a new model developed for the manufacture of fancy-pattern rib knit gloves; a Fidelity pocket creasing machine; and a Fidelity belt loop cutter.
Representatives at booth:
J. P. Vogt
H. I. Green
Walter Larkin
J. R. Bennett
George Petrie
L. K. Hill

J. A. FIRSCHING & SON, INC. (18-19)
421-423 Broad St., Utica 2, N. Y.
Features a new bias Collarette cutter and a new automatic laying-up machine designed to give better tension, higher and more uniform lays of cloth.
Representative at booth:
R. A. Firsching

FLORENCE DYE WORKS (130)
Woonsocket, R. I.
Features Harriset-treated sweaters, socks, hand knitting yarns and other worsted yarns, underwear, white and dyed top, and fabrics. A device for testing the degree of shrink resistance of wool in top form will be shown.
Representatives at booth:
Jean P. Guerin
Emory A. Richards

FRANKLIN PROCESS CO., INC. (60-61)
40 Worth St., New York 13, N. Y.
Features packages of dyed cotton and wool yarns; and package-dyed synthetics and blends.
Representative at booth:
S. Warren Cable

GASTONIA COMBED YARN CORP. (B)
Gastonia, N. C.
Features cotton knitting, weaving, and thread yarns, natural, dyed, and mercerized.
Representatives at booth:
H. A. James
Robert J. Gurney
Nat Zank
Arthur Adelman
Edward Strauss

GINSBERG MACHINE CO., INC. (78-79)
224 Fifth Ave., New York, N. Y.
Features pressing machinery for knit goods and the Trim-Master thread-trimming equipment. The Scissa-O-Matic electric scissors, Fan-T-Press pressing machine, and Steam-Lite pressing and examining machine will be shown.
Representatives at booth:
Wm. R. Lieberman
Si Margolis
Phil Harris

GLOBE DYE WORKS CO. (38-39)
4500 Worth St., Philadelphia 24, Pa.
Features dyed yarns for the knitting industry.
Representatives at booth:
H. T. Greenwood
Thomas S. Greenwood
William Goodis
William A. Hilbert
William B. Taylor

GOLDMAN PRESSING MACHINE CORP. (111)
400 W. Broadway, New York, N. Y.
Features new pressing machines and allied equipment. A new air-driven press will be shown.
Representatives at booth:
Albert Goldman
Isadore Goldman
D. B. Glugover
A. Gottlieb
Norman K. Goldman
Richard A. Glatt
Eli S. Dechter
Chas. Zacuto

H.B.C. CLOTH SPREADERS (115)
824 Arch St., Philadelphia, Pa.

HARRIET AND HENDERSON COTTON MILLS (36-37)
Henderson, N. C.
Features carded yarn, both single and ply.
Representatives at booth:
J. A. Cooper
M. Y. Cooper
Walter C. Brown
W. T. Cheatham
Harry C. James
David F. Swain
Paul A. Sweetser
A. G. Sewell
D. O. Blevins
G. A. Dalglish
A. M. Dalglish
P. H. Dalglish

HARRIS RESEARCH LABORATORIES (130)
1246 Taylor St., N. W., Washington 11, D. C.
Features Harriset-treated sweaters, socks, hand knitting and other types of worsted yarns, underwear, white and dyed top, and fabrics. A device for testing the degree of shrink resistance of wool in top form will be shown.
Representative at booth:
Louis R. Mizell

HEMINWAY & BARTLETT MFG. CO. (92-93)
500 Fifth Ave., New York 36, N. Y.
Features nylon threads and garments in which they are used. In addition to conventional nylon threads, the company will show its Filaspun thread, which was developed for the knitting industry. A new-type bobbin, Hembob, will also be displayed.
Representatives at booth:
C. Duane Houk
Henry T. Spray
Edward Vogel
Maurice Cohen

HOSIERY & UNDERWEAR REVIEW (117C)
1 W. 34th St., New York, N. Y.
Features a textile publication.

INDIAN ORCHARD FINISHING CO. (127)
Indian Orchard, Mass.

JACQUARD KNITTING MACHINE CO., INC. (23-24)
G & Lycoming Sts., Philadelphia 24, Pa.
Features the Model TAI 30-in. machine; TJ-12 30-in. machine; and the new LA-12 30-in. machine. Sweaters, women's knitted suits, T-shirts, polo shirts, and other fabric made on the company's knitting machines will be displayed.
Representatives at booth:
Charles F. Miller
R. C. Dott
J. Tittl
F. Beeton
H. Steinberg
W. Cohen
J. Forstadt

JOHNSTON MILLS CO. (98)
Charlotte, N. C.
Features sample cones of combed, carded, Durene yarns, natural, bleached, and dyed.
Representatives at booth:
David R. Johnston
Donald R. Jonas
R. M. Bechtel
F. N. Belk
W. J. Crummer
J. W. Ferguson
E. E. Jones, Jr.
W. B. Phelps, Jr.
W. J. Yates
Phillip R. Petersen

KASTRINSKY MACHINE CO., INC. (58-59)
651-55 Utica Ave., Brooklyn, N. Y.
Features a steam tentering and calendering machine and a two-roll steaming machine that either rolls or folds the fabric after it is finished.
Representatives at booth:
Samuel Kastrinsky
Irving Kaye
Harry Kastrinsky

A. KIMBALL CO. (97)
307 W. Broadway, New York 13, N. Y.
Features four types of label-marking systems: the Motor Kirking that marks all types of string tags and folding pin tickets; the Label Marker that marks all types of cloth and paper sew-in labels; the Model R that prints special types of pin tickets; and the Midget Marking System that hand- and motor-prints all types of Kum Kleen labels, gum labels, Kimflex and pin tickets.
Representatives at booth:
L. J. Waters
P. M. Pope
J. P. McGuire
J. C. Quinn
M. Potts
W. Hopley
E. Farrell
J. Bidstrip
H. Fryer
A. Bennett
C. Johnson
D. O'Brien
T. R. Spencer

JOSEPH KLUMPP CO. (105)
1346 Broad St. Station Bldg., Philadelphia 3, Pa.
Features cotton yarns, including carded, combed, Durene, combination, and specialty yarns.
Representatives at booth:
J. J. Klumpp
G. L. Vonder Lindt
Wallace Gill, Jr.
E. J. Keenan, Jr.
T. V. Lindsay
W. H. Cronin, Jr.
S. K. George, III
J. M. McGinnes

THE KNITTER (112)
Charlotte, N. C.
Features a textile publication.

KNITTING MACHINE & SUPPLY CO. (20-21)
250 W. Broadway, New York 13, N. Y.
Features Stoll-type flat power knitting machines.
Representatives at booth:
Ernest Marthaler
Hans Etterli

KROY, INC. (40-41)
51 E. 42nd St., New York 17, N. Y.
Features the Kroy process to make wool shrink-resistant. Kroy-processed wool in various forms, including top, yarn, woven and knitted fabrics, and garments of Kroy-process wool will be displayed.
Representatives at booth:
E. E. Whitman
Miles S. Pendleton
John S. Lewis
A. W. Thomson
Frank Whiting
Karl Chambers
W. W. Burbank

W. T. LANE & BROS., INC. (Mezzanine)
Poughkeepsie, N. Y.
Features canvas shipping hampers, canvas floor trucks, and canvas trucks for handling damp goods.
Representatives at booth:
R. T. Lane
Paul R. Hughes

LATTA, CURRIER CO., INC. (107)
350 Fifth Ave., New York, N. Y.
Features carded and combed cotton yarn and spun rayon for the knitting field.
Representatives at booth:
Albert W. Latta, Jr.
Arthur M. Currier
Wm. F. Durkin
James Doak
Dan S. La Far
Manning Malloy
L. E. Rudisill
Harold A. Cockroft

PERCY A. LEGGE (1-2-3)
432 Fourth Ave., New York 16, N. Y.
Features woolen and worsted yarns and blends.
Representatives at booth:
Clarence H. Vanderbeck
Henry C. Legge
Arthur E. Snyder
Oliver L. McCurdy
A. Rex James
Webster Smith
Charles W. Neeld
Richard C. Condon
Charles R. Rockwell
Marcel Dursin
Maurice Dursin
Leon L. Sylvestre
Vincent J. Cockroft
Edward S. Cobb
H. A. Stawniak

LIBERTY MARKING TAG CO., INC. (44A)
27 Hooper St., Brooklyn, N. Y.
Features new Lok-Tite marking tags designed for the knit-goods trade.
Representatives at booth:
Arthur E. Weiss
Mrs. Arthur E. Weiss

MacKNIGHT & ETHERINGTON BROS. (100)
1518 Walnut St., Philadelphia 2, Pa.
Features a reception booth.
Representatives at booth:
Burton H. Etherington, Jr.
Frederick H. Etherington
Henry W. Swift
John W. Crawford

MARKEM MACHINE CO. (118-119)
150 Congress St., Keene, N. H.
Features industrial marking machines. The Model 32A tag marker for marking piecework

*More than 47,000,000 consumers reading about Durene-labeled goods in

*Reg. U.S. Pat. Off.

STANDARD

Durene®

gives you
superior performance
in your plant—
on the consumer front

You can depend upon Standard Durene—quality-controlled mercerized yarn—to turn out better looking, longer wearing, more comfortable knit and woven goods and to please more and more consumers.* Don't pass up the extra benefits of Standard Durene. Check with our representative today.

Visit Us At Booth #34
Knitting & Allied Crafts Show.

Over Sixty Years
of Service to the Textile Industry

Standard-Coosa-Thatcher Co.

CHATTANOOGA 1, TENN.

New York 16, N. Y.
185 Madison Ave.

Chicago 54, Ill.
Merchandise Mart

Philadelphia 9, Pa.
123 S. Broad St.

Reading, Pa.

Greensboro, N. C.
Guilford Bldg.

Utica, N. Y.
P. O. Box 105

Representatives in Canada, Central & South American Countries

STANDARD DURENE
S-C-T INDUSTRIAL SEWING THREADS
natural, bleached, dyed

For more information, write direct or use Reader Service post card.

Guide to Exhibitors

payroll tags; Model 126 for printing two-color fabric labels; Model 25A for complete box-end printing; Model 105-10 for printing box ends; Model JB for fabric marking; Model 22A for printing string tags, and Model 23A for printing cone stickers will be displayed.

Representatives at booth:
Harold D. Milton
Earle C. Quimby, Jr.
Harold Lampman
E. R. Lane
William Morgan
A. N. MacNaughton
Gilmore Fretz

MASUREL WORSTED MILLS, INC. (140)
Samoset St., Woonsocket, R. I.

Features French-spun yarns, worsted blends of natural and synthetic fibers, novelty twists, and novelty yarns. Manyl, a new permanently shrunk nylon yarn, will be shown.

Representatives at booth:
Robert E. Boyavel
Bert Bouthillette
Philip Goldin
L. B. Howarth
Raymond San Souci

MEESE, INC. (71)
Madison, Ind.

Features canvas baskets, trucks, and work benches.

Representatives at booth:
E. W. Meese
F. R. Tyroler
T. Thorsen
H. T. Day

MERROW MACHINE CO. (69-70)
28 Laurel St., Hartford, Conn.

Features overseaming, overedging, hemming, shell- and crochet-stitch machines. Garments and sample swatches showing application of the machines will be shown.

Representatives at booth:
J. M. Washburn
J. E. Prentis
W. G. Howells
H. F. Stolzenberg
G. B. Armstead
C. W. Davis

CLARENCE L. MEYERS & CO. (16-17)
Second & Somerset Sts., Philadelphia 33, Pa.

Features the introduction of Ducle, a new yarn made from various synthetic fibers, for outerwear, underwear, and hosiery. Garments and fabrics of Durene yarn will also be shown.

Representatives at booth:
Clarence L. Meyers
Milton M. Meyers
James A. Meyers
Gordon E. Meyers
Chas. E. Bender
Edward N. Myers
Harry W. Schrader
Daniel Strauss
Ernest W. Fowler
Louis Eschelbach

MID-WEST PROCESSORS, INC. (35)
500 N. Third St., Libertyville, Ill.

Features skein dyeing of filament nyion and rayon and package dyeing of Laton. Dyed yarns, including cotton, worsted, wool, rayon, nylon, Laton, and all synthetics, on cones, tubes, and skeins, will be shown.

Representatives at booth:
Carl E. Bick
John F. Coyne

MODERN PRESSING APPLIANCES (137)
1884 Pitkin Ave., Brooklyn, N. Y.

L. P. MULLER & CO. (25-26)
Drexel Bldg., 121 S. 5th St., Philadelphia 6, Pa.

Features cotton yarns.

Representatives at booth:
H. D. Muller
H. G. Harper
J. M. Matlack
J. T. Hawthorne
F. H. Ward
W. J. Scott
H. R. Penington
T. C. Brown
J. J. Carey
T. H. Nicholson
H. R. Peck
E. O. Penington
W. C. Muller
E. H. Gossling
T. Dove

NARROW FABRIC CO. (10-11-12)
Reading, Pa.

Features knitted and braided elastics.

Representatives at booth:
S. R. Fry
J. W. Sweeney
F. S. Pierce
H. V. Vernet, Jr.
O. A. Kemp
A. A. Willus
K. Lieb
G. Dudley, Jr.

NATIONAL BUNDLE TYER CO. (73)
Blissfield, Mich.

Features Saxmayer tying machines, Models 6, 9, and 9DF.

Representatives at booth:
J. B. Saxton
G. P. Saxton
Charles Reitzes

NATIONAL KNITTED OUTERWEAR ASSN. (Mezzanine)
386 4th Ave., New York, N. Y.

Features a reception booth where association bulletins, reports, and surveys will be distributed.

NEW YORK PRESSING MACHINERY CORP. (117B)
880 Broadway, New York 3, N. Y.

Features air-operated presses for finishing knitted garments and polo shirts. The Convair unit that can convert latemodel foot presses to air, and a completely automatic press for steaming, vacuum drying, and release will be shown.

Representatives at booth:
M. Furetz
H. E. Cole
S. Berl
M. Rubenstein
M. Lachs

ORDNANCE GAUGE CO., INC. (62)
Amber & Hagert Sts., Philadelphia 25, Pa.

PARA THREAD CO., INC. (113)
212 Clinton St., Woonsocket, R. I.

Features a reception booth.

Representatives at booth:
George R. Toney
John J. Creeden
Harold Holtzman

JOSEPH PERNICK CO., INC. (101)
5419 Flushing Ave., Maspeth, L. I., N. Y.

Features knit-goods calender for finishing tubular cloth; measuring and examining machine for tubular cloth; pattern wheels for spring-needle knitting machines; and stop motions for raschel and Kidde machines.

Representatives at booth:
Louis Pernick
David Haft
David Pernick

PHILADELPHIA DYE WORKS (110)
G & Wyoming Sts., Philadelphia, Pa.

Features top, raw stock, and skein yarn dyeing; and the Kelpie wool shrink-treating process.

Representatives at booth:
Lindsey H. Mason
James R. Shoch
Walter E. Knipe, II
Thomas J. O'Donnell

PROCTOR & SCHWARTZ, INC. (132)
7th St. & Tabor Road, Philadelphia 20, Pa.

Features a movie and equipment for producing Redmanized shrunk-to-fit fabrics. Close control of relaxation shrinkage will be emphasized.

Representatives at booth:
William Poole
Myron T. Fleming
Frank Redman

PROSPERITY CO., INC. (116C-117A)
2131-2171 Erie Blvd., East, Syracuse 1, N. Y.

Features Model 160-PCK knitgoods press equipped with a conveyor, and Model 1424-ET electrically heated transfer press.

Representatives at booth:
J. F. Fredberger
George Salinett

QUEENS MACHINE CO. (124-125-126)
262-284 Starr St., Brooklyn, N. Y.

Features Queens fully automatic tandem-carriage links-and-links knitting machines; V-type flat machines; flat V-type double-head border machines; circular string border machines; parts and accessories; and samples made on these machines.

Representatives at booth:
Michael Zimic
Raymond Lanthier
Anthony Miskovsky
Jerry Miskovsky

RAYON & SYNTHETIC TEXTILES (135)
303 5th Ave., New York, N. Y.

Features a textile publication.

REECE CORP. (33)
500 Harrison Ave., Boston 18, Mass.

Features Reece 101 Model eyelet end buttonhole machines for knitted outerwear; Model S2 straight hole buttonhole machines for knitted underwear; and Reece S2 label sewer.

Representatives at booth:
J. H. Pikul
O. F. Christiansen

ROBERT REINER, INC. (66-67-68)
550-64 Gregory Ave., Weehawken, N. J.

Features the Reiner all-purpose raschel machine.

Representatives at booth:
Dr. Robert Reiner
Fritz Lambach
August Schoenenberg
George Moebius
Walter Horn

ROYAL COTTON MILL CO. (106)
Saxapahaw, N. C.

Features yarns of all descriptions: Durene, combed cotton, nylon, Orlon, Dacron, rayon, and acetate; mercerized, dyed, and special blends.

Representatives at booth:
B. E. Jordon
Frank Longerier

KURT SALMON ASSOCIATES, INC. (72)
3000 Albemarle St., N. W., Washington 8, D. C.

Features pamphlets and articles describing services rendered and available to the industry.

Representatives at booth:
Kurt Salmon
R. E. Ross

SCHOLLER BROS., INC. (122-123)
Collins & Westmoreland Sts., Philadelphia 34, Pa.

Features samples of soaps, softeners, synthetic detergents, and finishes; and samples of fabrics treated with them.

Representatives at booth:
L. M. Boyd
E. S. Atkinson
J. F. Noble
F. C. Scholler

SCOVILL MFG. CO. (22)
Waterbury, Conn.

Features Gripper snap fasteners.

Representatives at booth:
W. R. Spearrin
H. D. Ward

SELLERS MFG. CO. (106)
Saxapahaw, N. C.

Features yarns of all descriptions: Durene, combed cotton, nylon, Orlon, Dacron, rayon, and acetate; mercerized, dyed, and special blends.

Representatives at booth:
B. E. Jordan
Frank Longerier

SHELL OIL CO. (133)
50 W. 50th St., New York 20, N. Y.

Features lubricants for the textile industry. Shell VPI crystals, newly developed rust preventives, will be shown.

Representatives at booth:
R. M. Cokinda
C. B. Huntoon
Ray Nipple
George Hubbard

SINGER SEWING MACHINE CO. (45-46-47)
149 Broadway, New York 6, N. Y.

Features Class 242 hosiery seamer; Class 246 high-speed, automatically oiled overedging machines, specially fitted for operations used in the knitwear trade; 251-201 high-speed, automatically oiled two-thread chainstitch machine for closing operation; 71-112 straight buttonhole machine and 99w121 eyelet-end buttonhole machine mounted in tandem; 402w101 compound-feed lockstitch machine; 400w31 high-speed lockstitch machine with differential feed.

SPUN FIBERS, INC. (83-84)
51 Madison Ave., New York, N. Y.

Features worsted yarn and products made from it. The quality of the yarn and even spinning will be demonstrated by a Uster tester.

Representatives at booth:
E. H. Timanus
A. G. Corkery
J. L. Pfizenmaier
J. L. Stickley
L. F. Schaeffer
Bennett M. Berman

STAMPAGRAPH CO., INC. (91)
79 Alexander Ave., Bronx 54, N. Y.

Features hot-iron transfers (cloth decals) in one-, two-, and three-color combinations for textiles; embossed seals and labels; and pressure-sensitive labels.

Representatives at booth:
George Chadwick
George H. Chadwick
George K. Chadwick
C. Tatsch

EXTRA

Knitting News

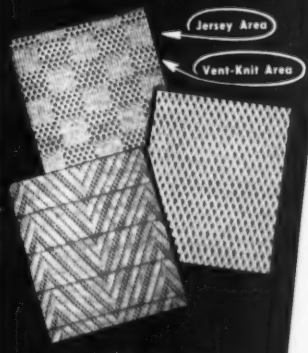
EXTRA

NEWEST! PATENTED! SUPREME LRP KNITS STRIKING, NEW AIR-COOLED FABRICS

...Supreme LRP *vent-knit*... ...n-cooled cloth th... ...nique. It knits patterns ... strong, ... Model ...

LATEST SUPREME DEVELOPMENT — MODEL LRP — PRODUCES

A NEW FABRIC WITH SUPER SALES APPEAL



Be sure To See The New LRP in Action At SUPREME BOOTH Nos. 63, 64 & 65 During The Knitting Show, Grand Central Palace, New York City, April 21 through 25.

Supreme announces an amazing, new summer wear and underwear sales-knitter, the Model LRP.

It knits patterns of air . . . produces wonderful, decoratively cool fabrics by placing open-stitched areas in a plain jersey background. These open, *vent-knitted* areas are large, sharply-defined patterns capable of wide variations in design.

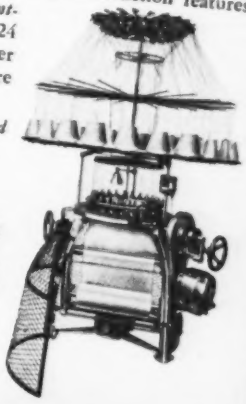
The *vent-knit* pattern is a firmly constructed latticework of stitches with scores of openings or air vents to let heat out and coolness in. The breeze-cooled comfort and beautiful effects give the cloth super sales appeal.

Ventilated Yet Full-Bodied, Run Resistant and Shape Retaining—With a unique arrangement of cams, sinkers and pattern wheels the LRP *vent-knits* pattern-cooled cloth that is strong, full bodied, run resistant and lastingly elastic. Combination rayon and cotton or other mixed yarns can be used to produce many startling fabric variations.

Dollar-Reaping Production Rates — The new Supreme LRP pours out a wide variety of *vent-knit* cloth at rates up to 28 yards per hour. The machine has Supreme's mill-proven, trouble-free design and production-boosting construction features.

The standard Model LRP *Vent-Knit* Machine is 24" diameter—24 Feeds—18 needles per inch. Other diameters and cylinder cuts are available.

Write for free information and cloth samples.



SUPREME KNITTING MACHINE CO., INC.
115 Johnson Ave., Brooklyn 6, N. Y.

Southern Rep. and Showroom:
THE MALLUCK CO., 711 S. TRYON ST.
Charlotte, N. C.

SK 146

Guide to Exhibitors

STANDARD-COOSA-THATCHER CO. (34)
Chattanooga 1, Tenn.

Features mercerized Durene yarn, dyed cotton yarns, and industrial sewing threads for the knitted underwear and outerwear trades.

Representatives at booth:
F. R. Harris
Emil S. Davis
M. Arnold Henderson
Robert Miller
H. L. Thurman
C. F. Smith
E. R. Dillmore
Wm. M. Hall
W. S. Lawson
J. P. Rickman
R. C. Thatcher, Jr.

STEELE CANVAS BASKET CO., INC. (96)
199 Concord Turnpike, Cambridge 40, Mass.

Features steel-frame canvas baskets, trucks, and hampers.

Representatives at booth:
Albert E. Pratley
Gordan La Whynaught

STONE BOILER EQUIPMENT CORP. (116A)
219 Broome St., New York, N. Y.

Features steam boilers for steam processing and pressing plants. The Stone custom-built packaged automatic gas- or oil-fired boiler and built-in return system will be shown.

Representatives at booth:
B. E. Edwards
S. Lansky
N. E. Stone

STOP-MOTION DEVICES CORP. (131)
1471-1477 Fulton St., Brooklyn, N. Y.

Features Wesco retractable electric-needle protectors; Sentinel press-off detectors with panel-box; press-off detectors for rib machines; hole and press-off detectors for jersey machines; safety controllers; knot, end, and slub detectors. Wesco stop motions and accessory equipment will be displayed as standard equipment on machines of the various manufacturers exhibiting at the show.

Representatives at booth:
N. J. Tellerman
Gordon F. Connors
Vincent Chaplin
Fred Weston

STRETCH-TEX, INC. (116B)
Talladega, Ala.

Features rubber-covered yarns.

Representative at booth:
Leonard Roberts

SUPREME KNITTING MACHINE CO., INC. (63-64-65)
105 Johnson Ave., Brooklyn 6, N. Y.

Features Model LRP, new Vent-Knit machine in the standard size of 24-in. dia., 24 feed, with 18 needles per in.; Model SR circular rib knitter; Model SA-AF pattern placer and automatic variable striper; and Model MJ jersey circular machine.

Representatives at booth:
Sidney Mishcon
Lester Mishcon
Irving Golden
Leonard Maurer
Harry Aquinek
Clyde Depuis
D. Depuis
J. Teitlebaum
J. Radin
Al Malluck

SURPASS CHEMICAL CO., INC. (102)
1254 Broadway, Albany, N. Y.

Features samples of specialty products applicable to the knitting trade. The Mexol process of bleaching and dyeing pastel colors in one operation, and a short-cut bleaching process will be displayed.

Representatives at booth:
Irwin J. Smith
Edward A. Chevrette

TEXTILE AGE (43A)
22 W. Putnam Ave., Greenwich, Conn.

Features a textile publication.

TEXTILE INDUSTRIES (104)
806 Peachtree St., N. E., Atlanta 5, Ga.

Features a textile publication.

TEXTILE WORLD (74)
330 W. 42nd St., New York 36, N. Y.

Features a textile publication.

Representatives at booth:
Edwin D. Fowle
William A. Newell
Richard C. Scott
George M. Moisson, Jr.
William Buxman
William B. Dall
A. W. Fisher
H. C. Harvey
R. L. Chisholm
J. C. White, Jr.

TEXTILES-INCORPORATED (90)
Gastonia, N. C.

Features cotton yarn.

Representatives at booth:
A. W. Latta
H. G. Dolliver
Justin Pearson
A. A. Dinsmore, Jr.

THREADS-INCORPORATED (89)
Gastonia, N. C.

Features a reception booth where a few sample cones of dyed yarns and threads will be shown.

Representatives at booth:
J. Gottlieb
John Land
George W. LeValley
Jos. J. Payson
Arthur Aronson
Howard N. Feist
Irving Simmerman
Harry Cooper
Herman Seidman

TORRINTON CO. (13)
59 Field St., Torrington, Conn.

Features knitting-machine and other type needles; needle bearings, roller bearings, and rollers from the Torrington Bearings Div.; and precision parts made by the Specialty Div. A complete line of leaded needles and parts for tricot and raschel-type machines will be shown.

Representatives at booth:
W. R. Reid, Jr.
C. H. Rowe
L. W. Losee
W. W. Bielock
C. T. Spalding
W. C. Wiechardt
Allen Maurer
Robert Brace
William Myers, Jr.

TUBULAR TEXTILE MACHINERY CORP. (54)
33-61 54th St., Woodside, L. I., N. Y.

Features tubular knit goods; finishing, tensionless calendering, and chemical processing machinery; stripe goods finishing. The Tube-Tex extractor pad and Tube-Tex stripe finishing machine will be shown.

Representatives at booth:
Eugene Cohn
Joseph Cohn
Don Foreman
John Sasson
Lee Rothenberg
D. M. Gold

UNDERWEAR INSTITUTE (Mezzanine)
2 Park Ave., New York 16, N. Y.

Features a reception booth.

Representatives at booth:
Roy A. Cheney
Earle E. West

UNION SPECIAL MACHINE CO. (31-32)
400 N. Franklin St., Chicago, Ill.

Features the new 50000 Series, including machines for attaching elastic to panties; attaching split tube border to neck and armholes of athletic shirts; patch operations on undergarments; seaming and simultaneously overedging knit outerwear; miscellaneous seaming operations on sweaters, etc., with differential feed and trimming mechanism; and attaching split tube borders to sweater coats and similar garments. Machines for seaming full-fashioned hosiery, overseaming operations on knit undergarments, and blind-stitch hemming, and a feed-off-the-arm machine for felling operations will also be shown.

Representatives at booth:
Travis S. Whitsel
Arthur J. Feigel
Larry M. Brown
Clarence L. Rosenquist
Elton S. Rockney
William E. Palm
Ben W. Merz

UNITED ELASTIC CORP. (94)
Easthampton, Mass.

Features woven and braided elastic and non-elastic webbing.

Representatives at booth:
R. A. Waite
W. E. Dalby
E. F. D. Bergmann
E. R. Boehm
Frank L. Dorr
H. O. Hollingworth
S. Clark Lilley

U. S. HOFFMAN MACHINERY CORP. (120-121)
105 4th Ave., New York 3, N. Y.

Features the CXF-5 press, fully automatic, air-electric press for woolen and cotton bathing suits, underwear, and sweaters; AXCO-5 press, new air-operated general utility press featuring two sets of control buttons and an optional pressure selection valve; Model I Q-8 Hoff-Man'ic, steam-air form machine for pressing lingerie; and Model HV-4 air vacuum unit, to supply vacuum for presses.

Representatives at booth:
C. Glenn O'Donovan
Louis Lichtman
Harold Rosenblatt
George Brendel
Sidney Hall
John Bohlman
John Flynn
John Delaney

U. S. RUBBER CO., LASTEX YARN & RUBBER THREAD DIV. (7-8-9)
1230 Ave. of the Americas, New York 20, N. Y.

Features Lastex elastic yarn, Laton elastic yarn, Lactron extruded rubber thread, Revere cut rubber thread, and fabrics and garments made from these yarns and threads.

Representatives at booth:
Philip Bergh
Henry B. Cobb
William Connelly
Paul Linke
Charles LoPresti
Robert Ostrander
Thomas E. Parks, Jr.
C. M. Patterson
Patrick J. Regan
Paul Westphal
Howard Young

FRANK URISH (99)
220-10 77th Ave., Bayside, N. Y.

Features Glomarker button and buttonhole marking machine.

Representatives at booth:
Frank Urish
William Littman
Julie Boxer
Murray Urish

UTICA NOVELTY & MILL SPECIALTY CO. (14-15)
2145 Dwyer Ave., Utica, N. Y.

Features a combination roll winder and strip cutter; laying-up machine; and multiple-knife collarette cutter with roll attachment.

Representatives at booth:
J. A. Firsching, Jr.
Donald Firsching
Eugene Buckley

VAN GELDER YARN CO., INC. (Mezzanine)
250 W. 57th St., New York, N. Y.

Features cotton yarns.

Representatives at booth:
A. Van Gelder, Sr.
A. Van Gelder, Jr.
J. W. Conard, Jr.
T. F. Brennan

VEEDER-ROOT, INC. (103)
70 Sargeant St., Hartford 2, Conn.

Features textile counting devices for production and quality control. The adaptability of counting devices to machinery normally used in the knitting industry will be shown.

Representatives at booth:
George L. Logan
Ted Nelson, Jr.
Wm. T. Heydt
Richard Moller
Walter Soderquist

WILLCOX & GIBBS SEWING MACHINE CO. (27-28)
214 W. 39th St., New York 18, N. Y.

Features industrial sewing machines, including the high-speed, automatically lubricated chainstitch machine, Type 1201; three models of the Superlock machine, for three-thread seaming on lightweight underwear, dresses and gowns, for three-thread continuous or intermittent ruffling and sleeve-setting operations, and for two-thread hemming on slips, negligees and panties made of nylon tricot.

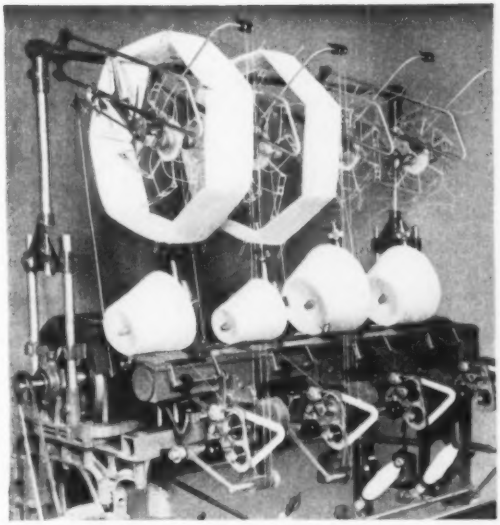
Representatives at booth:
N. Wonnacott
A. M. Miller
E. C. Ferguson
J. C. Nelson
C. H. Haviland, Jr.
S. C. Caronia
F. A. Snyder
H. F. Keegan
I. Kennedy
L. E. Sichel
J. Kropf
G. B. Tobey
A. E. Selby
L. E. Connolly
J. Bruce
J. E. Mattson
G. E. Haynes
F. Tagland
F. Malberti
E. F. LeFevre

WILLIAMS LAUNDRY MACHINERY CO., INC. (55)
37-16 22nd St., Long Island City 1, N. Y.

Features washing and fulling machinery for knit-goods manufacturers. A compact washing, extracting, fulling, and drying unit that can be installed in a small space will be shown.

Representatives at booth:
Herbert Maurer
Stanley Maurer
Jerome Maurer

Schweiter



THE SCHWEITER KM CONE WINDER

The Schweiter KM Cone Winder consists of a variable number of individual units, each a self-contained winder, individually driven — each waxing and winding in the same operation from either bobbins or skeins. The following features make it a fine investment which pays quick dividends.

- Winds perfect knitting cones
- Automatic tension compensation
- Direct winding from skeins
- Automatic cone size control
- Gear-driven wax application
- No stretched yarn — no waste
- No backwinding necessary
- Self-threading sapphire guides

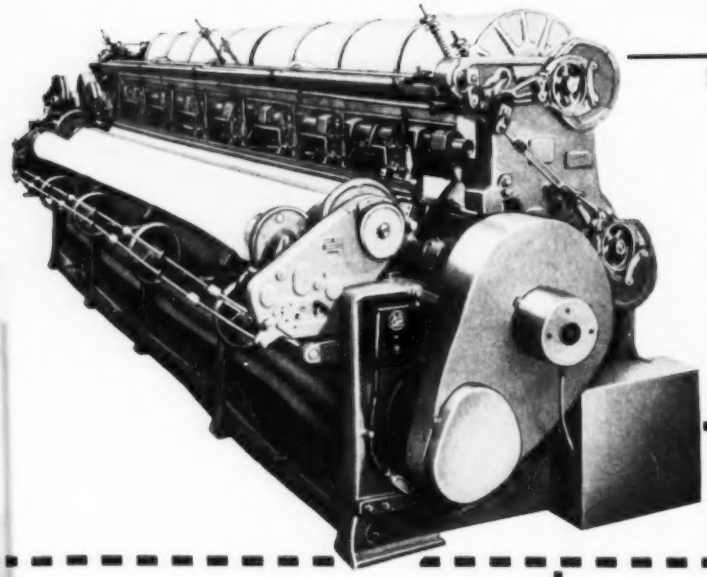
See the KM Cone Winder in operation at:
SPACE 134 • KNITTING & ALLIED CRAFTS EXPOSITION
GRAND CENTRAL PALACE • NEW YORK CITY • APRIL 21 - 25, 1952

SCHWEITER LTD

HORGEN (Zurich) Switzerland

Sole Agents for the United States and Canada
AMERICAN SCHWEITER COMPANY • WHITINSVILLE, MASS.

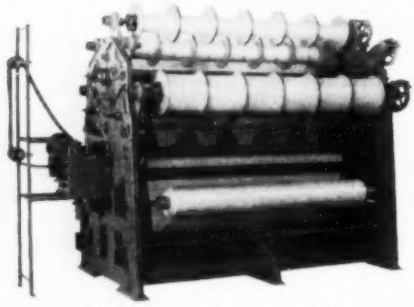
The World's Leading



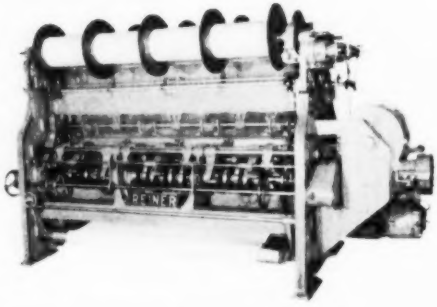
REINER TRICOT MACHINE

Quality control, ease, reliability and economy of operation are essentials of successful manufacture. The new Reiner Tricot Machine, in mill operation everywhere, easily meets all these requirements. Its automatic devices improve fabric quality and eliminate stop and shade marks. They assure a steady flow of flawless tricot cloth at top speed. Machine operation and care are made easier and yarn control more positive. Truly, here is *tricot at its best!*

Quality knitting is only possible with quality machines. For many years and in many mills Reiner equipment has proven to be of the superior quality class. Convince yourselves by inspecting this latest Reiner machine, in action, at the Reiner plants in Weehawken, New Jersey.



REINER KAYLOOM – The Kayloom machine is manufactured in two models. Model A is a plain needle bar high speed special purpose knitting machine. Model B employs a warp and filling. Both models are equipped with latch needles. Pattern control permits wide variations in design, stripes (warpwise or fillingwise), plaid, checks on the square or diagonal, which adds much to the variety of styles that can be produced.



REINER SIMPLEX MACHINE – Experienced knitters are aware of the ever-widening acceptance and popularity of goods made of Simplex cloth, such as gloves, swim suits, sport shirts, sport jackets, sport shoes, bed jackets, hand bags, slip covers, nightgowns, dinner jackets, dresses, riding vests, etc.

FOUNDED IN 1903

ROBERT REINER INC.

550-564 GREGORY AVENUE
WEEHAWKEN, NEW JERSEY

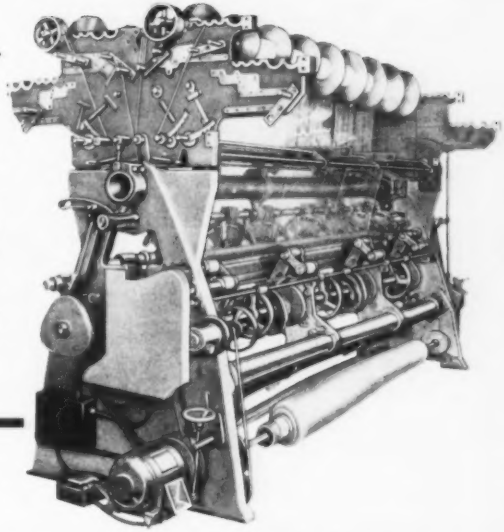
Warp Knit Line!

REINER RASCHEL MACHINE

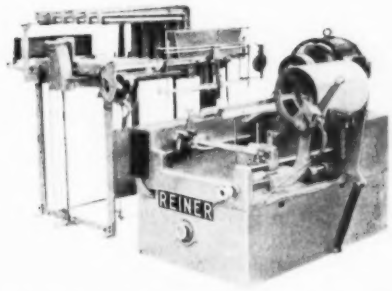
See this *New* Raschel Machine in action at booths Nos. 66 – 67 – 68, Knitting and Allied Crafts Exposition, Grand Central Palace, New York, N. Y.

It is the latest model in an unbroken line of Reiner Raschel Machines for three decades. It is sturdily built to withstand fastest speeds. It is offered with one or two needle bars, and up to 8 guide bars.

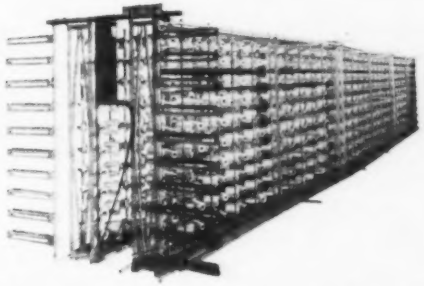
Optional features include: Chopper Plate – Automat – Plush Points – Crepe Attachment – Stitch Comb – Rubber Beam Feeding Device – and others. Gauges 24 – 36 – 40 (English) or to your specifications. Knitting width 100" and 112".



AFTER THE SHOW – *you are most welcome to visit the Reiner Plants across the Hudson River, where you may see how Reiner Machines are manufactured. Directions on how to reach us are below.*



REINER SW-24 SECTIONAL WARPER – These SW-24 machines are team mates of Reiner Creels and Warp Knit Machines – preferred by many mills. Spools up to 24" in length – flange diameter up to 24". Adaptable to multiple spools for narrow fabrics. Reiner offers sectional warpers up to 84" – all readily usable with any make warp knit machines.



REINER MAGAZINE CREEL – These creels are favorites in many mills. They feature various stop motions, tension devices, balloon control. Suitable for all types of yarns and packages, including nylon pirns. Other Reiner Creels are Truck, Single Type, Heavy Duty, or to your specifications. These creels are also readily usable with any make warper or warp knit machines.

10 MINUTES FROM TIMES SQUARE. Take Bus Nos. 61 or 67, from Platform No. 60, Port Authority Bus Terminal, 41st Street and 8th Avenue, New York City. Get off at Pleasant Avenue, Weehawken, New Jersey. From there turn left and walk through the underpass up to Gregory Avenue . . . TELEPHONE UNION 7-0502, 0503, 0504, and 0505. From New York City call LONGACRE 4-6882.

LOOK AROUND YOU---

*- at the **SHOW!***

- in the knitting mills

wherever you are -

you'll see

"WESCO"

ELECTRIC STOP-MOTIONS

STANDARD THE WORLD OVER

●

The logical choice of men who know how to get the most from the machines they buy

GUARD MACHINES AGAINST PRESS-OFFS

REG. U.S. PAT. OFF. WESCO TRADE MARK

PREVENT COSTLY NEEDLE BREAKAGE

LOOK FOR WESCO on all these knitting machines

H. Brinton Co.
Charles Cooper Co.
Crane Manufacturing Co.
Edmos Products Corp.
Fidelity Mach. Co., Inc.
Jacquard Knitting Mach. Co.
Lamb Knitting Mach. Co.
Leighton Machine Co.
Ordnance Gauge Co.
Scott & Williams, Inc.
Stafford & Holt, Inc.
Supreme Knitting Mach. Co.
Wildman Mfg. Co.

VISIT US AT BOOTH 131

GRAND CENTRAL PALACE, N. Y. • APRIL 21-25 1952

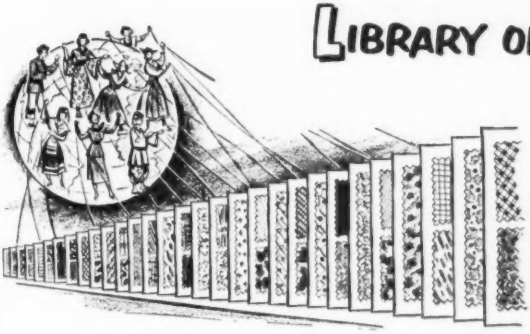
●

STOP-MOTION DEVICES CORP.

1471-1477 FULTON STREET, BROOKLYN 16, N. Y.

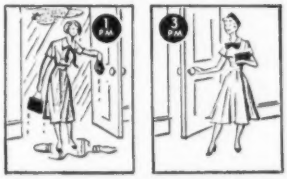
FIBER FARE..... from Du Pont

LIBRARY OF FABRICS



CONTAINS 100,000 SWATCHES FROM ALL OVER THE WORLD

The 100,000 swatches are foreign fabric samples—of both natural and man-made fibers. They are on file at the Du Pont offices in the Empire State Building, and have been made available to the textile market as a whole. It took nearly 25 years to gather the collection—believed to be the largest assembly of fabric samples in this country. Tomorrow's weaves, colors and print designs are finding inspiration here!

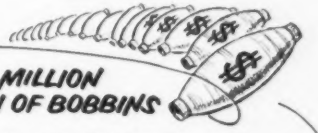


RAIN-DRENCHED NYLON OUTFIT READY TO WEAR IN 2 HOURS

Nothing the woman in the left panel is wearing escaped a torrent of rain. Yet she washed and dried the outfit—and put it on again—in just 2 hours. Reason: she was dressed in nylon—an example of a fiber into which chemists have built easy-care properties.

MAN-PLANNED FIBERS MAKE WOMAN'S WORK LIGHTER...

Like the washing machine and other home appliances, man-made fibers are 20th-century advancements that free women from household drudgery. They are *planned* to make living easier for them. Properties such as easy washability, quick drying, and maximum wrinkle resistance help give women more free time.



SEVEN MILLION DOLLARS' WORTH OF BOBBINS

For winding nylon yarn alone, Du Pont has seven million dollars' worth of bobbins. Du Pont's eight fiber plants daily consume as much water as Knoxville; produce enough electricity to power Indianapolis. These figures give you a hint of the tremendous investment in today's man-made fiber industry.

RAYON
DACRON* polyester fiber
NYLON
ACETATE
ORLON* acrylic fiber
*DU PONT TRADE MARKS

PASS THE FIBER FACTS ALONG!

In order to be *sure* that the consumer gets the facts on man-made fibers, it's important for everybody concerned to be well informed. Everybody—from millman to salesgirl—will benefit from the customer understanding how today's fibers mean better fabrics. Make sure *you* can answer all the fiber questions, and it will mean better selling for you.

Textile Fibers Department, E. I. du Pont de Nemours & Co. (Inc.), Wilmington, Delaware.
Du Pont makes only the fibers—not the fabrics or finished products shown.

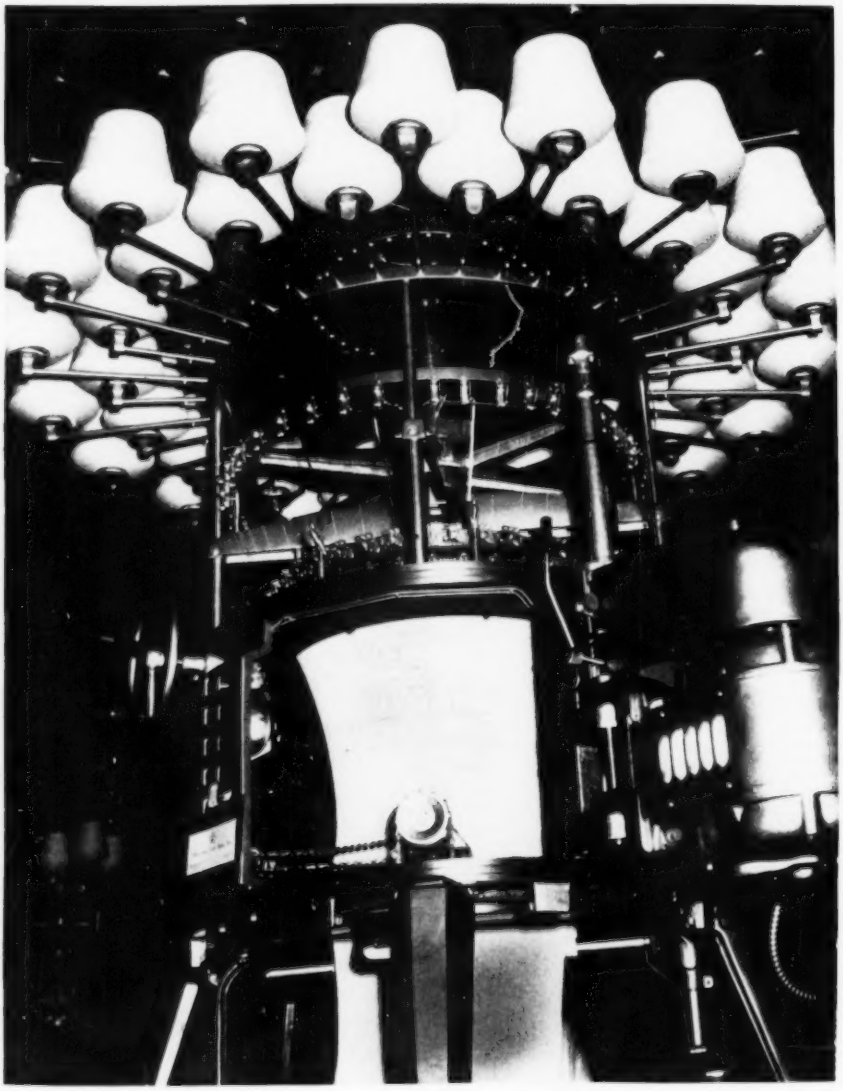
DU PONT
REG. U.S. PAT. OFF.

150th Anniversary

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

DU PONT FIBERS ARE PLANNED FOR BETTER LIVING

It takes PRODUCTION—*Quality & Quantity*
To build EDMOS REPUTATION



For Rib Underwear
For Rib Outerwear
For Rib Trimmings
For Everything that's Rib
Look to EDMOS for—
The best in Rib Body Machines

That's all we build
We do know how—
Meet with us at the
Knitting & Allied Crafts Exposition
April 21-25, Booths #48-49-50
Grand Central Palace, New York City

EDMOS PRODUCTS CORPORATION • 15 Christopher Ave., Brooklyn 12, New York

41%

OF INDUSTRIAL WORKERS
ARE VISUALLY UNQUALIFIED FOR THEIR JOBS

The record of visual performance tests of more than 5,000,000 individuals, in 4,000 job categories, reveals that, regularly, four of every ten industrial workers are visually unqualified for satisfactory performance on their jobs. It also shows just the degree to which these are the workers who are responsible for high costs . . . in accident rates . . . in waste and rejects . . . in labor turnover . . . in training time . . . in absenteeism.

YOU CAN IDENTIFY THE "VISUALLY UNQUALIFIED" IN YOUR PLANT

The Bausch & Lomb Occupational Vision Service is a scientific method for determining visual standards for every job, for identifying those who qualify, and for correlating visual skills to job requirements . . . to the profit of the employee and the employer.

A PROVED METHOD TO HELP YOUR PLANT MAKE MONEY 9 WAYS

The Bausch & Lomb Occupational Vision Service is available to you. It is easy to administer. Employee participation is voluntary . . . *and workers like the program.* Benefits which accrue in plants using O.V.S. (benefits which can accrue in your plant, too) include:

1. Improved quality of production
2. Increased production per worker
3. Reduced waste of materials and work rejects
4. Improved accident record
5. Reduced labor turnover
6. Lowered training cost
7. More effective placement
8. Reduced absenteeism
9. Improved employee relations

MAIL TODAY!

Send for the brochure "Eyes Right for the Job," which tells what the Bausch & Lomb Occupational Vision Service is, how easily it can be administered in your plant, and at what low cost.

Bausch & Lomb Optical Co., 95104 Smith St., Rochester 2, N. Y.

Please send me the brochure "Eyes Right for the Job," and complete details on the Bausch & Lomb Occupational Vision Service.

Name ..... Title .....

Company .....

Street .....

City ..... Zone ..... State .....

For more information, write direct or use Reader Service post card.

BRINTON

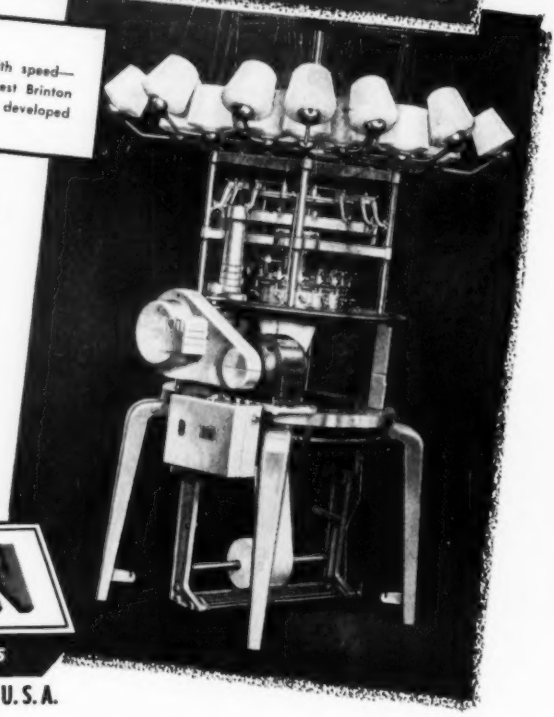
OFFERS YOU YOUR CHOICE OF TWO TYPES OF RIB BODY MACHINES

STATIONARY CYLINDER

Throughout the world knitting mills are using this type, such as the Brinton Maximum Feed Rib Body Machine shown above, because they find it unexcelled for delivering quality and quantity production.

REVOLVING CYLINDER

New features of engineering are combined with speed—plus—quality production in this type—the newest Brinton development. Years of Brinton research have developed these revolving cylinder machines.



WEIGH THE ADVANTAGES

Each type of machine has features of merit. Select the type best suited for your operation. The outstanding advantage of the machine, whichever type, is the Bonus Feature: *Brinton's 63 Years of Know-How*—seasoned engineering ability, expert mechanical knowledge, top-flight production experience and skilled craftsmanship—which assures you of the highest quality machine it is possible to manufacture.

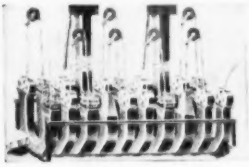
BRINTON

CIRCULAR KNITTING MACHINES

KENSINGTON AVE. & M ST., PHILA. 24, PA., U. S. A.

Du Pont Bleachery Survey Helps Mill Reduce Rejects

TOP BLEACHING ECONOMY



FOR SMALLER BLEACHERIES

Where production does not warrant a full-size continuous bleaching range, the Butterworth-Du Pont "Junior" Unit produces low-cost, quality results. With a rated capacity of 500 to 1000 lbs. per hour, the "Junior" unit meets space and production requirements of smaller mills. And large mills can use it as an economical auxiliary unit for specialty bleaching.

Compact in size, the "Junior" unit is a *complete* bleaching range designed on the principles of Du Pont Continuous Peroxide Bleach. Write in for complete information to: E. I. du Pont de Nemours & Co. (Inc.), Electrochemicals Dept., Wilmington 98, Delaware.

Poor whiteness and whiteness retention were causing a high percentage of rejects. Du Pont technical representatives, working closely with the mill operators, discovered the source of the trouble—bleaching and scouring baths were improperly formulated . . . final washing was inadequate. Laboratory tests confirmed these findings. As a result, adjustments were made in bath concentrations, and storage time in J-box was extended. Now, without increasing final washing, the mill has reduced rejects to a minimum—*and is producing top-quality cloth with substantially less bleaching and scouring chemicals!*

A bleachery survey can help you increase production . . . cut costs

HERE'S WHAT WE DO:

- Study your processing techniques—steam, water and chemical consumption, cloth production and quality of finished goods.
- Analyze samples of your cloth for whiteness, whiteness retention, fluidity, absorbency and non-fiber content.
- Evaluate all data in the light of Du Pont's broad experience in textile bleaching.

HERE'S WHAT YOU GET:

- Valuable, on-the-spot suggestions for improving your processing techniques.
- A written report on the efficiency of your bleaching operation, which includes detailed suggestions on how you can increase production, cut costs and improve the quality of finished goods.

DU PONT BLEACHERY SURVEYS are conducted by technical men with wide experience in all phases of textile bleaching. These men spend from one to three days in your plant but do not interfere with production. This service is offered without charge to all users of peroxide in the United States. Send in the coupon below for complete information.

DU PONT PEROXIDES

FOR TEXTILE BLEACHING

Available in drums and tank cars { "Albone" 35 . . . Hydrogen Peroxide, 35% / "Albone" 50 . . . Hydrogen Peroxide, 50%

DU PONT 150th Anniversary

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

E. I. du Pont de Nemours & Co. (Inc.)
Electrochemicals Department, Wilmington 98, Delaware

Please send me more information about the free Du Pont Bleachery Survey. I am bleaching____cotton____wool____ man-made fibers.

Name_____ Title_____

Firm_____

Street & No._____

City_____ State_____

For more information, write direct or use Reader Service post card.

For profitable information about

Harriset

Wool Shrinkage Control

Visit Booth 130

• Knitting and Allied Crafts Exposition •

Harriset, chemically adjustable to varying product needs, shows how to

- Preserve the desirable characteristics of wool
- Compensate for variations in raw wool
- Compensate for variations in construction
- Control wool shrinkage at all stages of processing

Visit Booth 130 for an enlightening demonstration

Exhibit is under the joint sponsorship of

AMES WORSTED COMPANY,
Lowell, Mass.

BARRE WOOL COMBING CO., LTD.,
298 Summer St., Boston, Mass.

FLORENCE DYE WORKS, INC.,
Woonsocket, Rhode Island

and

HARRIS RESEARCH LABORATORIES,
Washington, D. C., developers and licensers of the Harriset process

Rayon Reports

Published Monthly by American Viscose Corporation — New York, N. Y.

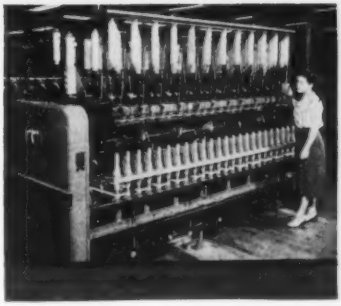
Stepped-up Staple Processing made possible by New Rover and Spinner

Added facilities for processing staple yarns from tow are provided by a 48-spindle FS-4 Rover and a 48-spindle SS-4 Spinner now installed at Avisco's Textile Research Department.

These new Saco-Lowell machines will process all the man-made fibers and all natural fibers except cotton in any length up to seven inches. Their use will be confined to the newer or modified worsted system, which involves fewer operations than the standard Bradford system.

The new Rover receives an untwisted sliver, drafts it, inserts minimum twist, and delivers it on a roving bobbin ready for spinning. The new Spinner accepts the roving from the FS-4 Rover and spins it into yarn.

The Rover and Spinner can be used with the Pacific Converter and a new Pin Drafter, also installed at Marcus Hook, to process yarn with fewer intermediate steps.



This expansion of the worsted division is but one segment of an overall broadening of the experimental work of Avisco's Textile Research Department. New developments in nearly every kind of textile machinery have been installed to round out the department's service to the industry.

Filatex yarns spark trend to ankle-length hose

The growing popularity of men's ankle-length hosiery is one result of the qualities of Avisco Filatex yarns. These elastic yarns are ideal for the elastic-tops that make socks self-supporting. Durable, lightweight with excellent laundering qualities, they are being successfully used for every type of sock in every price range. Development work to further broaden the application of these yarns is under way at the Textile Research Department.

MAKE USE OF *Avisco*®
4-PLY SERVICE

To encourage continued improvement in rayon fabrics, American Viscose Corporation conducts research and offers technical service in these fields:

1 FIBER RESEARCH
2 FABRIC DESIGN
3 FABRIC PRODUCTION
4 FABRIC FINISHING

AMERICAN VISCOSE CORPORATION

World's largest producer of man-made fibers

Sales Offices: 350 Fifth Avenue, New York 1, N. Y.; Charlotte, N. C.; Cleveland, Ohio; Philadelphia, Pa.; Providence, R. I.

See for yourself why shoppers

are demanding "REDMANIZED"* SHRUNK-TO-FIT knit goods

Visit the Proctor Exhibit in Booth No. 132 at the KNITTED AND ALLIED CRAFTS EXPOSITION, Grand Central Palace—New York, April 21-25. You'll see a *sound color movie,* "TO FIT, OR NOT TO FIT", showing the impact of "Redmanized" Shrunk-to-fit fabrics on the textile industry and the buying public.

You'll also see *vivid proof* in the form of actual shrinkage results in garments made of "Redmanized" Shrunk-to-fit fabrics and those of non-Redmanized fabrics.

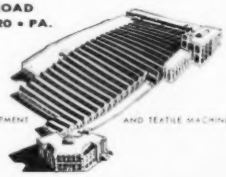
It's an amazing—dramatic—story of a process that is beginning to revolutionize the knit goods industry!

*Reg. U. S. Pat. Office

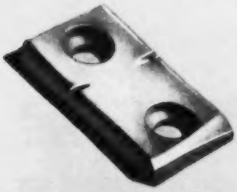
This system is completely covered by both process and machinery patents and patents pending.

PROCTOR & SCHWARTZ · INC ·

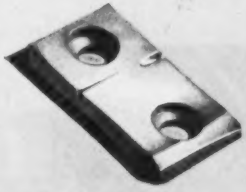
710 TABOR ROAD
PHILADELPHIA 20 • PA.



MANUFACTURERS OF INDUSTRIAL DRYING EQUIPMENT AND TEXTILE MACHINERY



Foster No. 51A-47 T
AlSiMag No. GE-24723



Foster No. 51A-24
AlSiMag No. GE-22558

AlSiMag® STOPS WEAR ON FOSTER BASE PLATES

FOSTER ADOPTS ADDITIONAL ALSIMAG GUIDES AS STANDARD

Foster Base Plates for 51A Slubcatcher were formerly made of hardened alloy steel. As speeds were increased and more worsted and synthetic yarns were processed, many mills found that the base plates quickly wore beyond use.

AlSiMag guides have solved other wear problems for Foster. They ordered sample Base Plates of AlSiMag 192. They were successful. Production quantities were then ordered. Now, after two years of use, these AlSiMag 192 Base Plates have proved beyond doubt that they have the dimensional accuracy as well as the extra long life that is required for this exacting requirement.

Foster has now adopted AlSiMag Base Plates as 100% standard on all 51A Slubcatchers. Their customers obtain the long continuous runs and precision winding always associated with Foster Machines.

We will be glad to send you sample AlSiMag Base Plates on request, without charge. Test them in your own mill and let them prove they are the answer to all wear problems.

FOSTER MODEL 102 CONE WINDER

BASE PLATES AND GUIDES

Foster Machine Co., Westfield, Mass., carries these AlSiMag Base Plates and guides in stock for immediate shipment. They also may be ordered from American Lava Corporation, Chattanooga 5, Tennessee, for shipment after normal production time.

Foster has previously standardized on AlSiMag "where excessive wear has been experienced in using other materials." These are:

Guide Button
for Foster Model 75
Straight Cone Winder.
Foster No. L-2381
AlSiMag No. GS-17712

Guide Tip
for Foster Model 75
Pineapple Cone Winder
Foster No. L-1688-B
AlSiMag No. GE-11985

Guide Sleeve
for Foster Model 76
Nylon Sizing Machine.
Foster No. 76-668
AlSiMag No. GE-16869

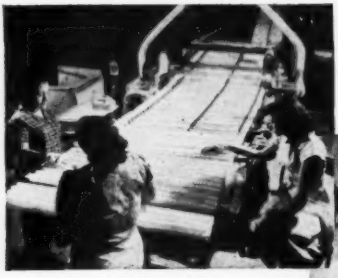
SAMPLES ON REQUEST

AMERICAN LAVA CORPORATION

50TH YEAR OF CERAMIC LEADERSHIP

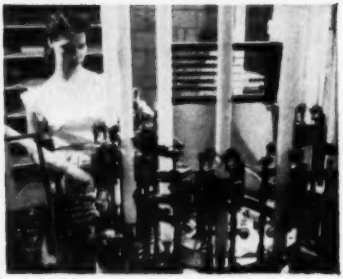
CHATTANOOGA 5, TENNESSEE

OFFICES: METROPOLITAN AREA: 671 Broad St., Newark, N. J., Mitchell 2-8159 • PHILADELPHIA, 1649 North Broad St., Stevenson 4-2823
SOUTHWEST: John A. Green Co., 6815 Criola Drive, Dallas 9, Dixon 9918 • NEW ENGLAND, 1374 Massachusetts Ave., Cambridge, Mass., Kirkland 7-4498
LOS ANGELES, 232 South Hill St., Mutual 9076 • CHICAGO, 228 North LaSalle St., Central 6-1721 • ST. LOUIS, 1123 Washington Ave., Garfield 4939



In this all-important step, skilled workers check the coating of Westinghouse fluorescent lamps to see that it is perfectly uniform and free of flaws.

This tremendous sphere measures light output. This exacting test is only one of the 247 tests imposed on Westinghouse fluorescent lamps to insure maximum lighting economy.



Here the electrode is carefully sealed into the lamp prior to the air-exhaustion and injection of the krypton-argon starting gas.

Lamp Division
Westinghouse Electric Corporation
Bloomfield, New Jersey

YOU CAN BE SURE...IF IT'S

Westinghouse

SOUTHWEST: John A. Green Co., 6815 Oriole Drive, Dallas 9, Dixon 9718 • NEW ENGLAND, 1374 Massachusetts Ave., Cambridge, Mass., Kirkland 7-4498
LOS ANGELES, 232 South Hill St., Mutual 9076 • CHICAGO, 228 North LaSalle St., Central 6-1721 • ST. LOUIS, 1123 Washington Ave., Garfield 4939

more light, more savings

NEW, EXCLUSIVE 90-WATT WESTINGHOUSE FLUORESCENT LAMP TOPS ALL OTHERS IN ITS CLASS

You're in for real savings with this new Westinghouse 90-watt fluorescent lamp, and here's why . . .

This new lamp gives you 6% more light than the 85-watt fluorescent lamp, yet uses only 2% more current. What's more, its high light output is consistent, for even after 7500 hours of operation it still out-produces any other lamp in its class.

In short, you get top lighting value from this new economy-size fluorescent tube! Try it out in your plant and see!

WESTINGHOUSE LAMP DIVISION Dept. 338
BLOOMFIELD, NEW JERSEY

I'd like to know more about the new 90-watt Westinghouse Fluorescent Lamp.

NAME .....

COMPANY .....

ADDRESS .....

CITY ..... STATE .....

BUY NOW AND SAVE! WESTINGHOUSE FLUORESCENT LAMPS STILL COST YOU LESS THAN THEY DID IN 1940, YET BURN SEVEN TIMES LONGER!

NEWS FROM WESTINGHOUSE, THE FASTEST-GROWING LAMP MANUFACTURER

by Sam Hibben

DID YOU KNOW?

Many deep sea fish have built-in fluorescent lights, but one of them has a twist: The sub-order Ceratioidea has its fluorescent lamp on the end of a pole! Smaller fish go after this luminous bait, and wham—they get eaten. The trick, I suppose, is how to keep big fish from going after the bait—but big ones seldom go that deep, and many lighted-up fish can dim out at will.

Fish, incidentally, have—like onions, cabbage or dozens of other foods—wholesome but penetrating odors when cooked. Westinghouse has just introduced a tiny lamp that destroys odors—it really does. The lamp puts out rays that create ozone, and the ozone oxidizes the floating molecules of most common odors. It's easier to operate than explain, but it costs only about 5¢ a week to burn and it keeps air fresh and sweet.

A THOUGHT FOR THE DAY:

Your eye lenses act much like a camera's. This means that the image on your retina is upside down. That is, the top of a tree registers on the bottom of the eyeball. You've simply learned to interpret it around again after the electric impulses have carried the "television" picture to the brain. Had you known you were that smart, or does the world still look upside down?

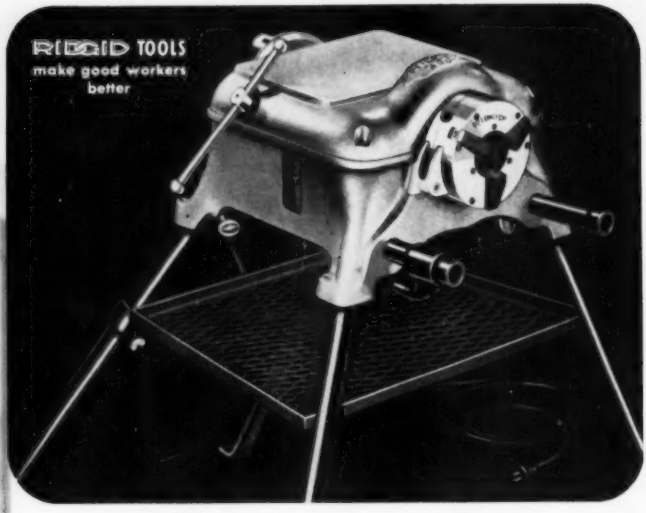
More next month.

Samuel G. Hibben

WHY SKILLED PIPE FITTERS Demand

RIDGID

"400" PORTABLE POWER DRIVE



RIDGID *"400"—bench model or stand with tray, capacity ⅛" to 2"—to 12" with geared tools.*

Time-and-work-saving power for hand threaders, cutters, reamers

★ Extra light-weight unit—one man can handle it.

★ Lots of power—universal motor, forward, reverse, won't bog down on large pipe.

★ RIDGID design 3-jaw chuck, chuck wrench ejector; self-centering workholder in rear turns with pipe.

★ Sealed-in lubrication—no oil to spill.

★ See the remarkable "400" at your Supply House!

THE RIDGE TOOL COMPANY • ELYRIA, OHIO

★★★ RIDGID Work-Saver Pipe Tools ★★★

The Textile Community

(Continued from page 174)

a good community recreation center. Its gymnasium, complete with bleachers, is large enough for two basketball courts suitable for collegiate championship games. It has a stage, too; so it can be used as a theater or auditorium. Bowling alleys, billiard tables, and ping-pong tables are provided. A skating rink, tennis courts, and a horse-shoe court are planned and will be added. A modern kitchen and a dining room equipped to seat 200 to 400 guests make the banquet affair something to look forward to in North Charlotte these days. A spacious lobby welcomes the guests of the "Y". Smaller meeting rooms are available to club groups. Nice offices give ample work space for the director and his staff of two male athletic directors and a woman who attends to the distaff needs. A TV room is always popular, as is the playroom for the children.

But of all the rooms in this hospitable community center, the one with most personality is the reception room. This room was included at the special request of the people of North Charlotte who wanted a place of dignity and charm for wedding receptions. Mrs. Horace Johnston personally selected the furnishings for the reception room and superintended every detail of the decoration, combining her good taste in color and decor with her affection for and understanding of the people of the little city, their needs, and their pleasures.

Wiscasset Memorial

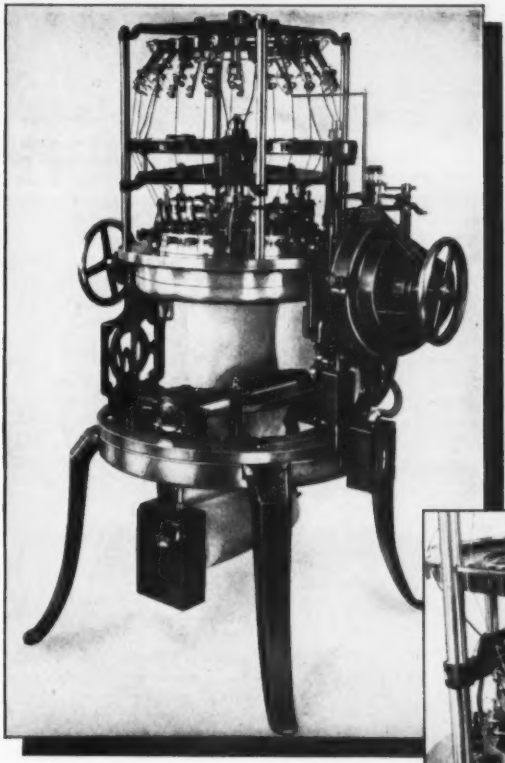
Another half-million-dollar building that brings pleasure to the citizens of Albermarle, N. C., is the spacious, white-columned "Y" erected by Wiscassett Mills. It has a unique dedication, too, for it is a memorial to the employees of Wiscassett. The company's payroll carries more than 3,000 names today, and of course over its 40 years of operation its employee roster has been an impressive one.

Stanley County, in which Albermarle is located, has one of the most beautiful parks in the South—several hundred acres at Morrow Mountain. Because of the park's unusually fine swimming pool and the town's pool, Wiscassett Memorial concentrates on other types of recreation features.

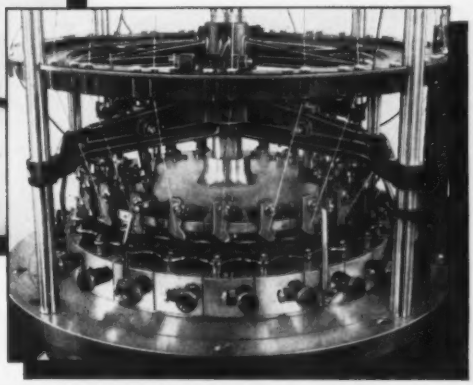
Its dining hall and gymnasium, when thrown together for banquets, seat more than 1,000. Recently the state convention of Lions' Clubs met there to hear an address by the group's international vice president. The state meeting of garden clubs, the War Mothers' convention, and others have made use of Wiscassett

5 BIG REASONS You'll want to Specify...

The WILDMAN MULTIPLE-FEED RIB MACHINE



1. Assures Better Styling
2. Guarantees Uniform Sizes
3. Uses Less Power for More Production
4. Offers Flexibility for pattern designs in sports wear and all other knitted garments
5. Accelerates Production

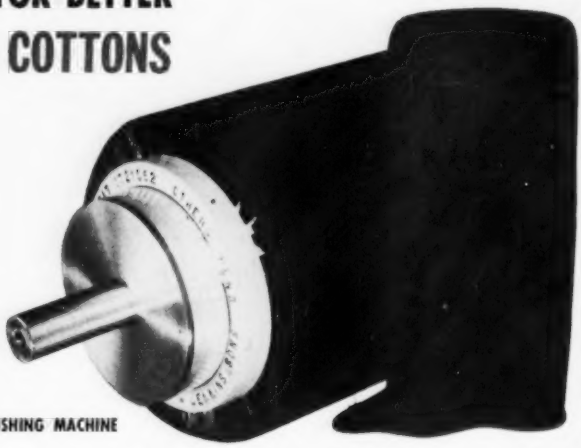


Wildman
MANUFACTURING CO.

NORRISTOWN, PENNSYLVANIA

For more information, write direct or use Reader Service post card.

JENKINS' METLKOR®
BETTER BRUSHES FOR BETTER COTTONS



BRUSHING MACHINE

The widening uses and demands for cotton over past decades has created a number of new problems in production and finishing. M. W. Jenkins' Sons has designed and developed a special line of brushes to solve these problems. The results of this experience, research and development, in cooperation with leading textile mills and machinery manufacturers are available today in the highly efficient patented Jenkins' METLKOR brush.

This brush, with a permanent metal core, can be set with any bristle and can be rebristled when worn. Bound in place with corrosion-resistant metal and sealed in with solvent-proof plastic cement, the Jenkins' METLKOR brush is moisture-proof, acid- and alkali-resistant, will not sag, split or get out of alignment, is true balanced.

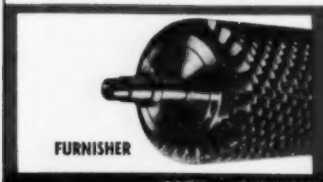
METLKOR brushes outlast other kinds of brushes and, in terms of service, are the most economical.

Whether you have a standard or special brush problem, Jenkins will manufacture to your specifications and needs, the right brush for the right job.

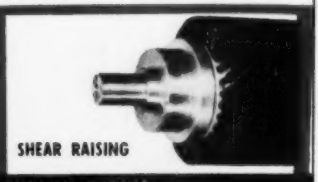
LIFEWOOD® *for wood core brushes and lags.*

OTHER METLKOR BRUSHES FOR COTTONS:

CARDING • SINGEING • BRUSHING PRIOR TO PRINTING • PRINTING BLANKET SCRUBBER, WASHER AND DRIER • BACK GRAY SCRUBBER • SOAPING • FURNISHER BRUSH CLEANING



FURNISHER



SHEAR RAISING

1877 • DIAMOND JUBILEE • 1952

M. W. JENKINS' SONS, INC.

Three-Quarters' Century of Pioneering Brushes for Industry

Cedar Grove, Essex County, New Jersey

TELEPHONE Verona 8-5227

Memorial. The entire community enjoys the unusually fine library and the recreation programs.

"Sure," said Wade Denning, general manager and vice president of the mill, "all age groups love our "Y". But the high-school kids love it best of all. They flock here for club meetings, fun fests, and dances. Especially the dances!"

Such fine, new community centers certainly are good YMCA drawing cards. But the real "Y" program of youthful character building and adult morale stimulation is found wherever the "Y" spirit prevails. "Only," said one youngster, "it prevails stronger in a nicer place."

N. C. State

(*Continued from page 145*)

to the industry that has come up in years.

3. **Consulting services on manufacturing problems** ranging from overall mill-organization troubles to the cause of dark specks in yarn. For here is a collection of available and experienced engineering and manufacturing brains that few mills can afford.

4. **Technical articles and textbooks written by the men** obtained by the school—knowledge that deserves to be on paper but that would probably never get there without the opportunity for these men to write it down in the planning of courses.

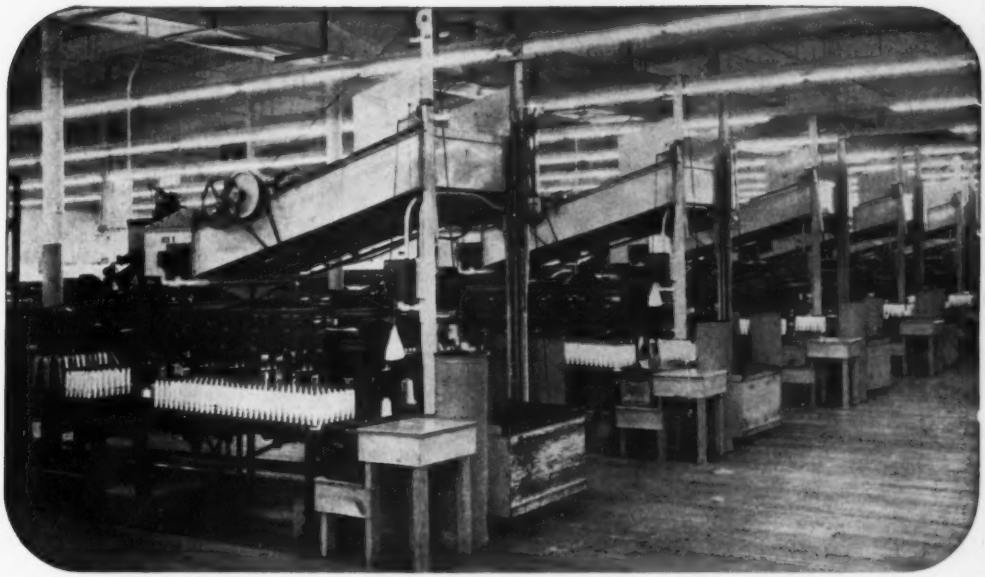
5. **Special courses for training of mill personnel**—the school is frequently called on for these by mills.

6. **Support of the school and the industry by the state.** Within the last three years, new buildings increasing floor space 80% and new machinery, together costing over $1,000,000, have been provided by the State of North Carolina, no doubt spurred by the interest and cooperation of the industry itself.

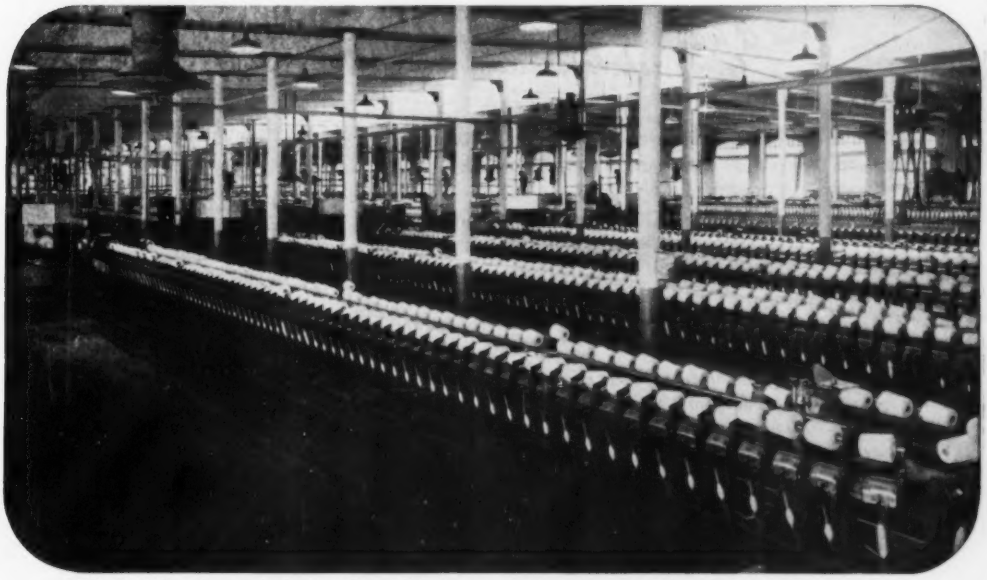
7. **A top-notch teaching staff in the school**—men of such caliber that last year's course simply isn't good enough to use another year without up-to-date revisions. Men willing to travel to mills and machinery makers to keep posted on latest methods. Men with initiative.

The interest of the foundation is not limited to financial help. The annual meetings of the foundation are held at the School of Textiles Building, and last year over 250 foundation members and friends attended the meeting at the school. This cooperation between industry and the school is outstanding and has resulted in benefits to all concerned.

Another result of this confidence

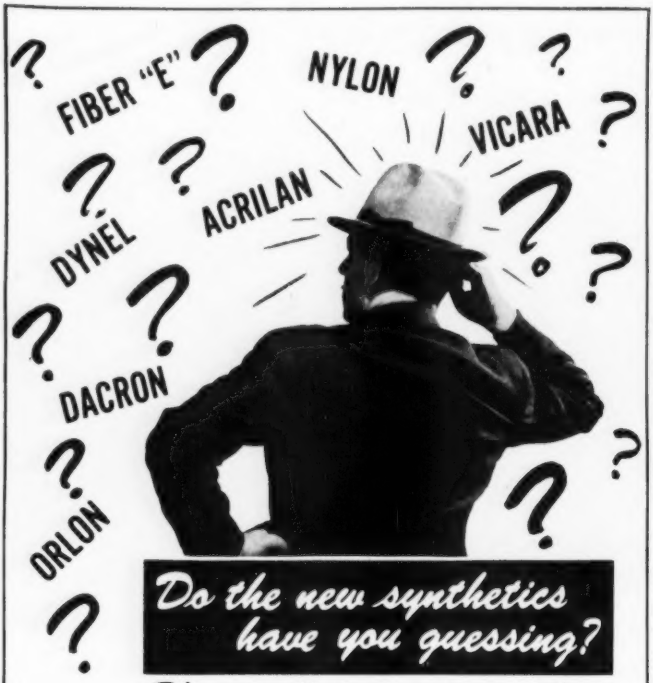


Winding a better weaving loom bobbin that improves fabric quality, Abbott Automatic Quillers offer the lowest winding cost in the automatic winding field. One operator can maintain a steady production load of from 1000 to 2000 wound bobbins per hour.



With the Abbott Automatic Cone or Cheese Winder, one operator, from a seated position, sets full bobbins in a rotating magazine and doffs full packages, maintaining a steady production of from 800 to 1000 bobbins wound onto packages per hour. It's the low-cost installation for efficient twisting, warping, or sale yarn package winding.

ABBOTT MACHINE CO., INC.
WILTON, NEW HAMPSHIRE
SOUTHERN OFFICE, GREENVILLE, S. C.



Do the new synthetics have you guessing?

Then it will pay you to consult a Globe representative

Don't take needless risks with the dyeing of Orlon, Dacron, Vicara, rayon, nylon, or any of the other synthetic yarns you plan to use.

Call in one of our experienced field men, who can give you the technical and practical information you may require at the start.

Globe's equipment is of the most modern types, and Globe's dyers have the know-how to help you use these new yarns efficiently, alone or in blends.

We do package dyeing on tubes, skein and warp dyeing, warp mercerizing and sizing. Yarns we process include all the new synthetics, cotton, rayon, worsted, nylon, linen, blend and novelty yarns.

Globe DYE WORKS CO.

1865 1952

4500 Worth Street Philadelphia 24, Pa.

of the industry, which is reflected as a significant mark of recognition of the success of the cooperative program, has been the increase in donations to the school of supplies and equipment. Mills, rayon producers, textile supply houses, and machine builders have contributed physical assets of great value, and these contributions have been on the increase.

Sparkplug of the Textile School team at North Carolina State is Dean Malcolm E. (Sandy) Campbell. A former cotton-research man, Sandy knows the needs of industry well and knows what objectives he must attain to satisfy those needs.

If the textile industry in the South continues to grow, and it undoubtedly will, one important contributing factor will be the attitude of Southern mills toward its textile schools. That attitude is manifested to some extent in the North Carolina Textile Foundation, Inc. The 246 mills that make it will continue to reap the benefits of the "future insurance" they've taken out by their support of the Foundation.

SG-1—New Spinning Frame

(*Continued from page 124*)

the tape is maintained by a pre-adjusted internal spring and plunger. One advantage of this new tape-tension pulley assembly is the ease with which the direction of the twist may be reversed.

The frame shown recently at Biddeford was equipped with the new Overdrive porous-center tape (TW, Mar. 52, p. 274).

Motor Is Water-Cooled

The frame is driven by a motor located under the frame. Because many mills are now air-conditioned, the motor is of a special water-cooled design. The heat generated by the motor is carried off by the coolant, and the load on the air-conditioning system is thus reduced. The motor also has a type of winding that is said to assure a satisfactory uniform efficiency during the entire cycle of the doff. The drive from the motor to the cylinder is through a V-belt.

While power consumption per frame is higher, because of the larger package, power cost per pound of yarn produced is said to be no higher than that of a conventional frame.

Builder Motion Has New Design

A completely new builder motion adaptable to either warp filling or combination wind has been designed for the Saco-Lowell Gwaltney spinning frame. The new builder de-

SAVE HALF YOUR MONEY

...own a

Hayssen

automatic

TEXTILE WRAPPING MACHINE

A Hayssen unit costs you less than you think and occupies about half the usual floor space. This machine wraps 35 or more packages per minute with one operator. You get a neat, tight, uniform package with electric-eye registration of printed overwrap . . . extra protection for your product and increased sales appeal.

A FULL LINE OF MACHINES WRAP

Sheets, Pillow Cases, Bolts of Fabrics, Curtains, Underwear, Shirts, Towels, Handkerchiefs, Hosiery, Batting, Yarn

The Hayssen Textile Wrapping Machine handles heat-sealing cellophane, pliofilm and polyethylene. It overwraps cartons, trays, flat cards and u-boards . . . handles the most delicate fabrics and fluffy material like cotton and wool bats. Special attachments (electric eye, roll-type top labeler and printer, card or u-board feeder) are available.

Over 42 years' experience gives Hayssen machines unmatched performance, low first cost, overall economy of operation and maintenance. Many Hayssen units are in use today that were purchased over 20 years ago.

WRITE for folder on Hayssen Textile Wrapping Machines. Tell us your wrapping problems —we may have the answer.

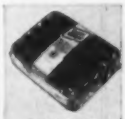
IT PAYS TO WRAP THE HAYSSEN WAY

Hayssen MFG. COMPANY

Dept. TW-4, SHEBOYGAN, WISCONSIN

Since 1910, One of the World's Largest Manufacturers of Wrapping Machines

BAKED GOODS


MEATS

TEXTILES

VEGETABLES

FROZEN FOODS

ODD SHAPES

CANDY

ICE CREAM

DAIRY

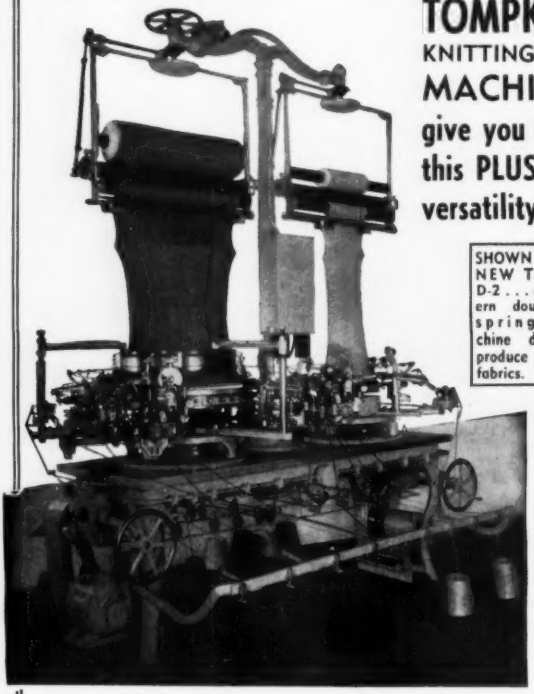
PAPER

SINCE 1846

NO FANCY CLAIMS

. . . just down-to-earth good quality cloth at high production speeds and rock bottom costs!

TOMPKINS KNITTING MACHINES give you all this PLUS fabric versatility!



SHOWN HERE is the NEW TOMPKINS D-2 . . . a fully modern double head spring needle machine designed to produce a variety of fabrics.

- JERSEY CLOTH
- SINGLE & DOUBLE PLUSH with single or double backing
- TERRY CLOTH
- POROUS FABRIC

and others!

DOUBLE HEAD MODEL D-2 (above) is equipped with individual motor and drive for each head. New stop motion with furnishing wheels control each end of yarn and prevent imperfect feeding of yarn to needles . . . imperfections are caught before they get into the cloth! Yarn tension always remains constant and steady for delivery from furnishing wheels . . . for a reduction of at least 50% in needle replacement expense! Optional equipment available include a 3-color (3-thread striper as well as a foolproof pattern attachment for putting in or taking out a pattern.

• OTHER TOMPKINS MACHINES •

MODEL B-15
Latch needle type, plain jersey stitch. Recognized simplest and easiest to operate machine in the world!

MODEL S-1
Single head, spring needle machine. Hailed for its extreme versatility, maximum flexibility and wide range of capabilities!

TOMPKINS BROS. CO.
623 ONEIDA ST. SYRACUSE 4, N. Y., U. S. A.

ESTABLISHED 1846 . . . over a century of continuous service to the knitting industry throughout the world. Write for complete data.

velops an accurate and uniform motion for the ring rail, anti-node rings, and thread guides. A wide range of change gears gives complete control over such details as the rate of traverse and the taper at both ends of the bobbin.

Future Now Up to Mills

The new frame is in production at the present time, and about 350 are expected to be installed by the end of this year. Three major installations are now in progress—30 frames at York Div., Bates Mfg. Co., Biddeford, Me.; 50 frames at the Ninety-Six (S. C.) plant of Greenwood Mills; and 40 frames at the Alice Mill, Easley, S. C. Sample frames will be installed shortly at the Schools of Textiles of N. C. State College, Clemson College, and Georgia School of Technology.

At the moment, Saco-Lowell engineers are making no specific claims about the performance of the frame. In the words of Frank Lowell, general sales manager, "We are putting a new tool in the hands of the mills. What they can and will do with it remains to be seen."

Cost of the new frame is about $56 per spindle, but this price includes the water-cooled motor, New Era spindles, Pneumafil, and all other features described above.

Humidifier Maintenance

(*Continued from page 141*)

Regulators

The automatic-control regulators require very little care, considering their sensitivity of movement. If cleaned and inspected each shift, they will usually give years of satisfactory service. When one of these controls does not function correctly, it should be sent back to the manufacturer to be completely rebuilt.

The small fan of an enclosed-type regulator should be kept in good operating condition. Failures of the fan may cause the control box to be filled with stagnant air, and the regulator will not operate effectively. Each regulator should be placed in an area where the air is as representative as possible of that of the entire room.

Shutdowns of the System

A planned procedure should be followed when the humidity system is shut down. The water heater at the water box should be turned off before the water is shut off at the main valve. The air supply should be left on until most of the water has been blown from the line. The air supply should

Why U. S. Rubber V-belts *cut overhead*

Savings in Maintenance: Inherent stretch is worked out mechanically in the factory; take-up is seldom, if ever, necessary. If required, the belt can be made oil-proof.

Savings in Power: Because U.S. Rainbow V-belts have practically no slippage, there is no loss of power between driver and driven machines.

Savings in Replacement: U.S. Rainbow V-belts last longer because they are not affected by moisture, cold, or heat.

To reduce any heat generated by constant flexing, and to get maximum adhesion between the component parts of the belt, the cords are treated with latex. Every U.S. Rainbow belt has the unique Equa-Tensil Cord Section—the U.S. Rubber development that insures sufficient pull and strength under diverse operations. Order from your jobber, or for more information, write to address below.

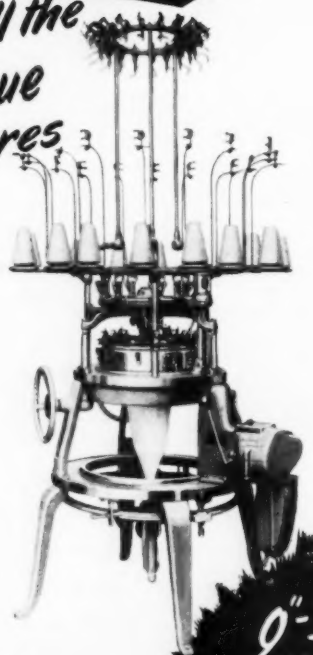
HITCH YOUR DRIVE TO A U.S. RAINBOW V-BELT

PRODUCT OF U.S. RUBBER

UNITED STATES RUBBER COMPANY

MECHANICAL GOODS DIVISION • ROCKEFELLER CENTER, NEW YORK 20, N. Y.

The New
Mellor—MBI—Bromley
INTERLOCK
Multifeeder and stripe or check pattern machines
with all the unique features



9"-30" DIAMETERS
20-24 CUTS

★

Send for full details, to the builders of more than 7000 Interlock machines operating successfully in almost every country in the world.

K17A

MELLOR BROMLEY & CO. LTD
LEICESTER · ENGLAND

be shut off at last, and little wetting-down or bleeding of the humidifiers will result as the pressure in the line diminishes.

When the humidity system is started up after a week end or other shutdown, the heater should be started first, the water valve opened next, and the air valve last.

Humidity plays an important part in the manufacture of textiles, and too much emphasis cannot be placed on the need for proper maintenance. A well-planned humidity system, placed in the care of a reliable man, is one of the most valuable assets of a mill.

Shuttle Fur

(Continued from page 131)

is ⅛ in. wide requires a fur ⅞ in. wide. A snug fit of the fur to the shuttle is ideal, since a close-fitted fur will leave no open edges to hang the filling.

Furs are usually sold in rolls in widths ¾ to 1¼ in. or wider. However, many mills buy whole pelts and slit them to their own specifications. Slitting the pelts and grading the fur is an exacting and tedious job that requires a lot of skill.

The thickness of the pelt (hide) is important. A pelt that is too thick requires valuable space in the shuttle that should be used for the filling package.

Fur is usually sheared before it is shipped to a mill. The shearing of the fur has several advantages. Pelts, before being cut, are processed in a machine that cleans and electrifies them. The hairs are combed in the electrifying process, and all the hairs stand upright. While all the hairs are still upright, they are sheared to any length from ¾ to 1 in. No long hairs are left.

Unless otherwise specified, fur is cut to a ⅞-in. pile. This length is often too long for ideal weaving conditions. If the correct weight of fur is used in a shuttle, the ends of the pile from the two shuttle walls should be cut to meet in the center of the shuttle. This length of pile is especially good to insure the proper threading of the shuttle eye at the transfer of the filling.

Of course, if the grade of fur is too heavy for the filling being run, the fur will have to be trimmed by the loom-fixer or shuttle-shop man after the fur is put in the shuttle.

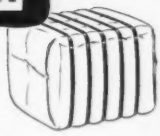
Useless trimming of fur by loom-fixers should be eliminated. Besides the waste of the fur, the fur trimmings will weave into the cloth. Since fur will not dye the same color as the cloth, defects will be noted in the dyed cloth.

The correct way to determine the

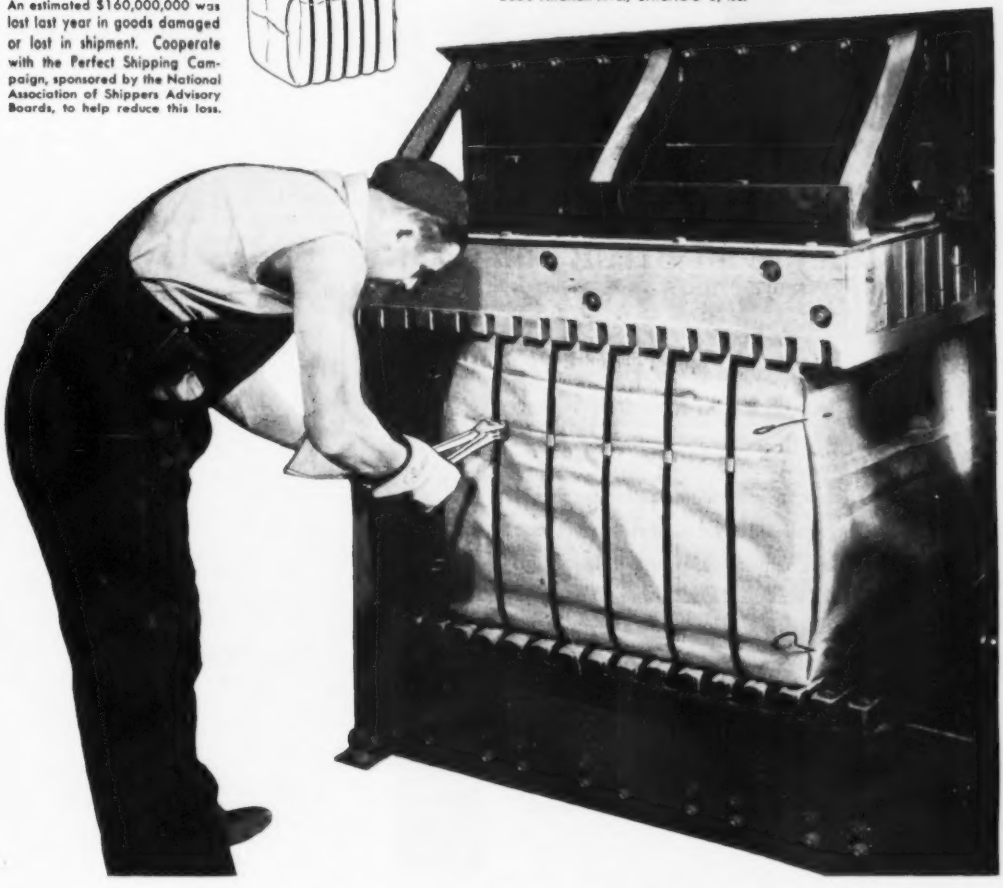
Acme Steel Strapping Insures S.A. *(Safe Arrival)*

ACME STEEL

ACME STEEL PRODUCTS DIVISION
ACME STEEL COMPANY
2820 ARCHER AVE., CHICAGO 8, ILL.



An estimated $160,000,000 was lost last year in goods damaged or lost in shipment. Cooperate with the Perfect Shipping Campaign, sponsored by the National Association of Shippers Advisory Boards, to help reduce this loss.



not on these machines!

...they're all BIJUR equipped

Each maker of these machines had your best interest in mind when he built-in a Bijur lubricating system. Human carelessness and forgetfulness are eliminated by machines having built-in Bijur lubricating systems. These machines will never be shut down because they lack continous, proper lubrication. Make certain the machine you buy is furnished with a Bijur lubricating system.

Write for Bulletin 6A

BIJUR

LUBRICATING CORPORATION

Rochelle Park • New Jersey

proper length of the fur pile is to measure the inside dimensions of the shuttle at the top edge of the groove and divide the measurement by two. If a fur is sheared to that pile length, the piles of the furs opposite each other will meet in the center of the shuttle.

Be Specific When You Order Fur

The fur-pile length desired should be specified in a factory order for fur. The fur is sheared at the edges so that few hairs will extend below and above the shuttle. Little or no trimming of the fur will need to be done if the pile is of the proper length and if the fur is selected for the ideal weight.

When you order fur, it is often advantageous to send a sample of the fur wanted. Information that contains the types of filling yarns, twist per inch, and the material that is being woven will also help the fur manufacturer to provide a mill with the proper grade fur for any construction of cloth.

New Zealand o'possum pelts are usually used for shuttle furs. Occasionally, Northern domestic muskrat pelts are used on special weaves for fine-count or low-twist filling. The muskrat pelts are finer in texture and last longer than o'possum pelts but are much more expensive.

After furs are bought by a mill, they should be stored in a cool, dry place to prevent the natural oils from drying out of the hair.

Two weights or grades of fur may be stitched together and cut to the required shuttle length at the fur factory. The mill would glue this fur into the shuttle with no cutting except to round the ends.

The two-weight system of fur usage is economical to a mill because a heavy fur may be used at the front of the shuttle and a lighter and cheaper grade of fur may be used at the clip end of the shuttle where the filling-tension requirements are less severe.

The length of the shuttle fur is determined by the length of the bobbin and by the amount of filling tension needed. Spun-rayon fillings often use fur that is one-half the length of the filling on the bobbin.

Fur the Shuttle Right

Fur should be run until it shows appreciable wear. A loom that is making slack picks or kinky filling in the cloth should be checked for loom defects before the shuttle is refurred. Loomfixers should not be permitted to promiscuously tear out shuttle fur without reason.

A steel brush that has long prongs may be used to increase the life of

Your most reliable source

Acetic Acid

by Celanese

Write for your copy of recently published catalog *"Celanese® Organic Chemicals."*

CHEMICALS by CELANESE

- Acetic Acid
- Butyl Alcohols
- n-Propanol
- Methanol
- Acetaldehyde
- Formaldehyde
- Formaldehyde in Alcohols
- Paraformaldehyde
- Butylene Glycols
- Dipropylene Glycol
- Propylene Glycol
- Acetone
- Propylene Oxide
- Tricresyl Phosphates
- Special Solvents

Celanese' expanded production, research and quality control are ready to serve you. Your most reliable source of Acetic Acid can now be your principal supplier of this vital industrial chemical. New processing methods insure higher quality, greater production, lower costs, and now make Celanese Acetic Acid available to all industry in larger volume than ever before. Contract now for your increasing requirements of Acetic Acid.

Contact our nearest district sales representative, or write to Celanese Corporation of America, Chemical Division, Dept. 571-D, 180 Madison Avenue, New York 16, N. Y.

A Celanese Chemical is always a better buy.

- **Production by controlled oxidation of selected petroleum hydrocarbons**
- **Complete shipping service: tank car, tank truck, drum**
- **Terminal and distribution points in key locations**
- **Research that anticipates industrial requirements**
- **Expansion program that looks forward to your growing needs**

Celanese® CHEMICALS

®Reg. U. S. Pat. Off.

This NEW CONSTRUCTION
Revolutionizes Swivel Casters!
LOCK-WELD
Built Stronger · Last Longer
Fairbanks® great new swivel caster

FAIRBANKS
Series 23
pressed steel caster

LOCK-WELD CONSTRUCTION (patented) MEANS

NO KING PIN — completely eliminates the greatest single cause of caster failure: the king pin.

EASIER SWIVELING — double ball race held in rigid alignment. Tremendous increase in swiveling efficiency.

SUPER STRENGTH — top plate and retaining plate are projection welded into an integral unit. No wear between rigid and moving parts. Patented leg design prevents bending and buckling...disperses load over larger area.

COINED RACEWAYS • HARDENED BALL BEARINGS • PRESSURE LUBRICATION
Complete information on LOCK-WELD casters is contained in Bulletin 23-33, free on request.

THE Fairbanks COMPANY
393 LAFAYETTE STREET · NEW YORK 3, N. Y.
Branches:
New York 3 • Pittsburgh 25 • Boston 10 • Rome, Ga.

VALVES • DART & PIC UNIONS • TRUCKS • CASTERS

shuttle fur from 10 to 15%. When the hairs of the fur curl and become lifeless, the steel brush should be used to comb the fur.

The person who refurs shuttles should be well qualified through instruction and experience. He should also be able to use good judgment, since few rules can be made in fur application.

One man on each shift should fur all the shuttles on that shift. That man is usually known as a shuttle-shop man. Often it is not practical to use a full-time shuttle-shop man, and a man who covers binders, or who has similar duties, may refur shuttles satisfactorily.

It is always bad practice for loom-fixers to refur their own shuttles. If loomfixers care for their own shuttles, a weave room that has 700 looms would have shuttles furred by 30 men and furred 30 different ways.

Eight steps are necessary if shuttles are to be furred correctly:

1. CHOOSE THE FUR. Measure the width of the shuttle to find the length of the pile to be used. Measure the shuttle-wall groove to find the width of the fur needed. Check the filling to be run and the material to be woven to see what grade of fur should be used.

2. SHAPE THE FUR. Trim the corners round so that no filling will hang on the corners of the fur.

3. PREPARE THE SHUTTLE. Scrape all shellac or finish from the inside walls of new shuttles. Scrape all dried glue and fragments of fur from the inside walls of an old shuttle.

4. APPLY THE GLUE. The glue may be applied to the fur. A small paddle is used, and the glue is placed on the pelt surface. Some men prefer to put the glue directly in the shuttle-wall groove on one side with their finger. Either method is O.K.

5. PUT THE FUR IN THE SHUTTLE. Put the fur in one side of the shuttle, taking care to keep the hair free from glue. After the fur is placed in one side of the shuttle, a metal or plastic shield should be placed over the fur to prevent glue from getting on the first piece of fur while the fur is being put on the other wall of the shuttle. Then the second piece of fur is placed in position and the shield is removed.

6. TRIM THE FUR EDGES. The fur should be pressed in the shuttle until all of the pelt is firmly against the wall groove. The bottom edges of the fur are trimmed even with the shuttle wall. If the excess fur is not trimmed, it will interfere with the true flight of the shuttle and also will wear off and weave into the cloth. The top

EXPERIENCE hits the target every time

Oscar Heineman offers you the advantages of nearly six decades of successful experience as expert processors of yarn for the hosiery and knitting trades—a backlog of know-how that cannot be surpassed.

At Oscar Heineman's plant you will find the most modern processing machines, the skilled workmanship that delivers the finest processed nylon, silk and rayon yarn and that priceless ingredient of seasoned experience.

Your product is no better than the yarn that goes into it. With a Heineman-processed yarn you start right and you sell right because the workmanship, the quality and the experience are there.

A Heineman-processed yarn is insurance for hitting your market target.

Inquiries are cordially invited. If you have a special problem, the chances are that we can come up with a solution.

OSCAR HEINEMAN CORPORATION

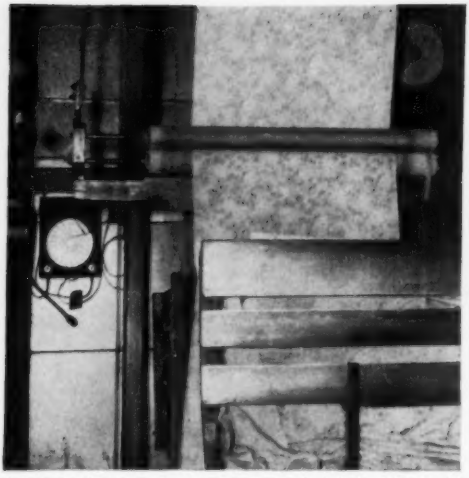
DIVISION OF AETNA INDUSTRIAL CORPORATION

2701 ARMITAGE AVENUE, CHICAGO 47, ILLINOIS

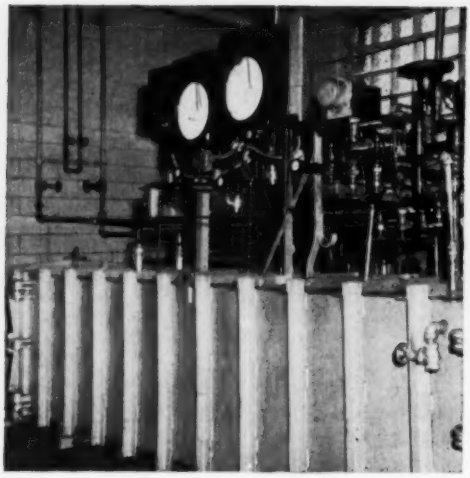
Heineman famous for quality since 1893

DONALD G. BREWSTER, President and General Manager

SALES AGENTS • C. D. GOTT COMPANY • 513 Chattanooga Bank Bldg. • Chattanooga, Tenn. • Tel. 7-8879
• THOMAS C. ASSHETON COMPANY • 11 West 42nd St. • New York 18, N. Y. • Tel. Pennsylvania 6-8280
• FRANK LUNDAY • P. O. Box 1154 • Charlotte, N. C. • Tel. Charlotte 8100



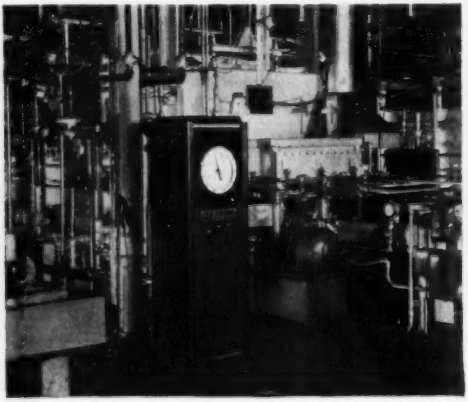
$30,000 SAVING IN ONE YEAR *was effected in this textile finishing mill . . . with the help of the Brown thermometer controlling the temperature of the print dryer. Controlled condition drying eliminated jagged fabric rips which had resulted in absolute waste.*



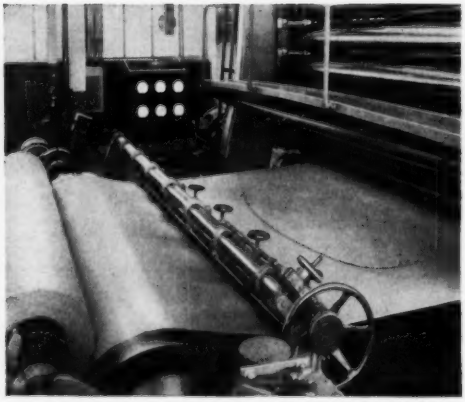
DUAL USE OF RETORT, *thanks to custom-built control system, permits using same equipment for boiling meats that is used for pressure-cooking glass-packed products. Cook time has been cut; glass breakage eliminated; labor saved; and production increased for both jobs.*

For all of industry... *especially*

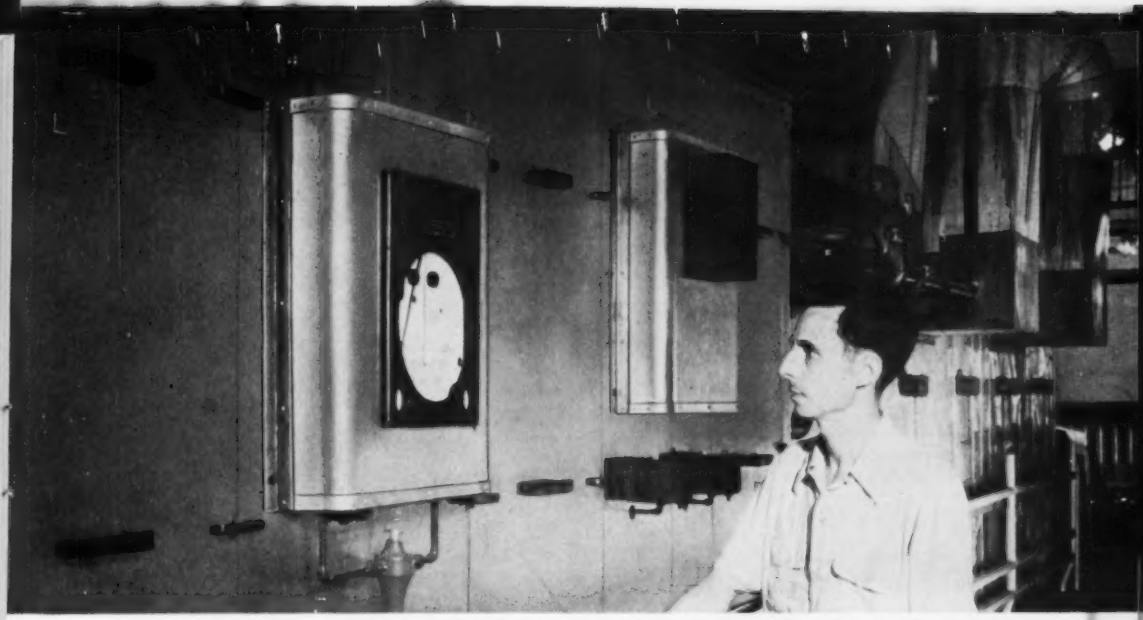
Instruments



PREVENTING COSTLY ERRORS *in heat treatment is the job of this Brown dew point recorder. Carburizing, nitriding, dry cyaniding and carbon restoration are affected by the dew point of gases employed, and have a profound effect upon the final metallurgical results.*



ALL BTU'S ACCOUNTED FOR . . . *in this machine room. Brown integrating flow recorders keep close track of every pound of steam . . . give speedy indication of excessive steam consumption. A variety of instruments hold operating costs at a minimum throughout pulp and paper mills.*



OPTIMUM EFFICIENCY *for textile fiber or fabric drying is dramatically illustrated by this combination of a gas-fired loop dryer and modern instrumentation. A Brown Thermometer Controller and* Protectoglo *Combustion Safeguard System help maintain ideal processing conditions...regardless of ambient temperature and humidity.*

for the textile industry

reduce costs

ECONOMICAL use of power and raw materials, elimination of waste and rejects, and improved product quality . . . all add up to reduced costs when the controlled chain reaction of textile processing explodes into increased profits.

Proper control for a loop dryer is a good case in point.

Controlled dryer temperature results in operation at the ideal heat input . . . conservation of power and raw materials. Controlled dryer temperature results in correct regain and elimination of tears . . . fewer reruns and less waste. Controlled dryer temperature results in level drying that prevents dye migration . . . uniform high quality product.

Thus it is clear that the maintenance of low-cost operation is closely related to the all-important need for high quality and a favorable competitive position. And Brown instruments are continuing to make timely contributions to low cost operation throughout the textile industry.

Our local engineering representative will welcome the opportunity to discuss all of your instrumentation requirements . . . is prepared to recommend control systems that are designed to meet the specific needs of individual operations. Call him in today, he is as near as your phone.

MINNEAPOLIS-HONEYWELL REGULATOR CO., *Industrial Division*, 4509 Wayne Ave., Philadelphia 44, Pa. Service facilities available in more than 55 cities in the United States.

MINNEAPOLIS
Honeywell
BROWN INSTRUMENTS
First in Controls

● *Important Reference Data*

Write for a copy of new brochure, "Tomorrow is Today" . . . and request Data Sheets for specific textile processing operations.

Good News!

Jute mills in India are turning out growing supplies of BURLAP, including the famous ANGUS BURLAP.

Steady, increasing shipments are coming to Bemis ... the only importer of ANGUS.

AND THE PRICE IS DOWN

Ask your Bemis Man for the up-to-the-minute news about BURLAP.

Economy Suggestion: Buy wider widths ... 60", for instance ... which Bemis imports. You get important labor cost savings in unloading, bale-opening, splitting, etc. Often there is less waste.

Get the Good News, too, about BEMIS TITE-FIT TUBING,

the bias-sewn burlap tubing for economical packaging of bulky or odd-shaped products.

Check Tite-Fit Tubing seams. You'll find NO WASTAGE. Then compare with other bias-sewn tubing ... compare the yardage required for any given job. You'll find the real economy is in Bemis Tite-Fit Tubing. Depend on Bemis — originators of bias-sewn tubing.

Bemis

BEMIS BRO BAG COMPANY

Baltimore • Boise • Boston • Brooklyn • Buffalo • Charlotte • Chicago Cleveland • Denver • Detroit • Houston • Indianapolis • Jacksonville, Fla. Kansas City • Los Angeles • Louisville • Memphis • Minneapolis • Norfolk New Orleans • New York City • Oklahoma City • Omaha • Philadelphia Phoenix • Pittsburgh • St. Louis • Salina • Salt Lake City • San Francisco Seattle • Vancouver, Wash. • Wichita

edges of the fur should be trimmed the same way that the bottom edges are trimmed.

7. **BRUSH THE FUR.** After the glue has dried, the fur should be brushed and all ragged edges trimmed smooth. The fur should be rebrushed to remove loose hair.

8. **CHECK FILLING TENSION.** The shuttle eye should be loosened until the tension on a piece of filling is very light. The fur should then be trimmed until the desired tension is reached.

An almost empty bobbin of filling is put into the shuttle, and the fur is trimmed until the filling tension is the same as the tension on a full bobbin of filling.

After the fur is run for 2 or 3 hr. in a loom, the tension should be rechecked, and reset if necessary.

A combination of careful fur selection, skillful shuttle furring by the shuttle-shop man, and good judgment in deciding when to replace fur will reduce any weave room's fur costs.

Tips From STA Meetings

(*Continued from page 135*)

T, where shuttle life averaged 3,300 loom hours last year. This print-cloth mill uses dogwood shuttles running 30s warps and 40s filling at 164 to 172 ppm.

Nylon Squeeze-Roll Blankets

"These blankets have run the longest time I have ever seen blankets run," said a mill superintendent. He's using a blanket made of wool, reclaimed wool, and 12% nylon. The blanket has been running over 4 mo. without any ill effects in weaving or finishing. These results have been obtained on a 50-50 blend of acetate and viscose and on heavy yarn. Yarns of 100% acetate or viscose did not run as well with the nylon blanket.

Synthetic Squeeze Rolls

Several mills reported excellent results with synthetic covering for the back squeeze roll on the slasher. Blanket cost is cut down, and some mills are getting less shedding at the slasher. Better dressing and higher speeds were also mentioned as advantages of the synthetic rolls.

Controlling Weave-Room Quality

The superintendent of a large North Carolina mill summarized his quality-control program this way—

"We are weaving on a cut basis, with an average weaving time of about 18 to 20 hr. for a cut. I go for systems a whole lot myself; I have always believed in them. I have maintenance

EFFECTIVE PENSIONS

A Problem Common to Both MANAGEMENT and LABOR

BOTH MANAGEMENT AND LABOR are seeking the best method of solving the retirement problem. A real measure of financial security is the goal, but there is no standard method for achieving this goal. The great variation in earnings and working conditions in companies and trades create the need for different approaches to the common problem.

Our Pension Trust Division has acquired a unique experience in developing all types of pension systems for a great number of trades and businesses. This experience can be invaluable in working out a pension plan to fit the income and employee benefit requirements of your company. We shall be glad to discuss with you any pension problem you may have, including pension costs. No obligation whatever.

WE ACT AS TRUSTEE UNDER PENSION AND PROFIT-SHARING PLANS AND AS AGENT FOR INDIVIDUAL TRUSTEES.

Write or call the
PENSION TRUST DIVISION,
The National City Bank of New York
and
City Bank Farmers Trust Company.
Ask for our Pension Booklet TW4.

CITY BANK FARMERS TRUST COMPANY

Chartered 1822

HEAD OFFICE: 22 WILLIAM STREET, NEW YORK

Affiliate of

THE NATIONAL CITY BANK OF NEW YORK

Established 1812

THESE MACK BAKELITE BOBBINS WITHSTAND NYLON'S MIGHTY GRIP

The cut-away photograph shows why and how these new Mack bobbins can withstand nylon's mighty grip yet provide a light weight bobbin of high impact strength. Bushings of molded bakelite are press fitted and cemented into bakelite barrels. Additional strength is gained by locking the assembly in position with the drive screws that hold the heads. Bakelite heads complete an all-bakelite construction that withstands steaming after steaming without distortion. They start concentric; stay concentric. For winder spinner use where steaming is not required, vulcanized fibre heads can be used at a considerable saving in cost.

These Mack bobbins are thoroughly proven; in more than 2 years of mill operation not one has failed in service. For full information on how you can utilize the extra strength and precision of these dynamically balanced concentric vibrationless bobbins, write, wire or phone the Allentown Bobbin Works, 417 North 14th Street, Allentown, Pa. Phone Allentown 5-1501.

ALLENTOWN BOBBIN WORKS, INC.
ALLENTOWN PENNSYLVANIA

broken down into two categories. We try to keep things from happening, and if they do happen we try to keep them from happening again. We concentrate on preventive maintenance.

"The looms we have are of two types—XD 64-in. Draper, and C. & K. W-3 convertibles. We are running fancy work on the W-3's and plain and dobby work on the Drapers. Every loom in the mill is set up on very strict settings. I have a bunch of gauges that we had made up all on one stick. This stick gives the basic loom settings, and we work from that almost entirely—that is, for the heavier motions on the looms. We use the gauges given us by the manufacturers for the lighter motions.

"Getting back to starting the loom on a new warp or new style, we make the graphs for the pattern change or box change available to the fixers or supervisors, and they set up the looms. We have a schedule check that the loom fixer goes over in starting the loom up. It includes the let-off, take-up, shuttle, and other major motions on the loom. That check is bound in plastic so it will not get dirty. The supervisor has one and the fixer one. The supervisor goes over it in checking the loom. The smash hand, who smashes the loom just before it starts, goes over it, initials it, and puts on a card that says, 'This is new warp.' Then the smash hand okays it. We try to define the responsibility for a good start-up.

"That loom is started up, and on the second shift the second hand for that shift will give it the same checking. The smash hand for each block of looms is responsible for checking the draw pattern. As they are running, she makes an inspection with a magnifying glass of the lighted or unlighted type. She goes around and indicates each piece of goods she has checked. That is the preventive maintenance we have there.

"Our corrective maintenance follows a program like this:

"Our cloth room inspects the cloth. If the grader finds the cloth defective, a grading slip is made up with the imperfections on it. This slip is sent to the weave room as soon as possible. We do not make individual trips because our cloth room is not located in the mill. We make several trips during each shift. That grading slip is turned over in the weave room to the supervisor, who in turn gives it to the fixer. The fixer checks the loom over again completely to try to ascertain the trouble and make the adjustments to correct it.

"At the end of the shift a report of imperfections by loom numbers, cause,

You'll turn out more quality hosiery, underwear, or outerwear when you use Laurel soaps, oils and finishes. They give you better production and softer, smoother, faster selling knitting.

Scientifically developed to meet the needs of knitters, Laurel Products have won an outstanding place as processing agents for all fibers. Among the better known for their performance are these -

Laurel Processing Agents for Knit Goods

dye — bleach — finish

Laurel Hydrocop & 3B Softener • Laurel Brand Soaps
Laurel Textile Oil • Laurel Synthetic Detergents
Laurel Hydrosol • Laurel Nylon Finishes
Laurel Hosiery Finishes • Laureltex Transfer Remover
Laurel Yarn Conditioning Oils
Laurel Knitting Machine Oil

Check with us for practical recommendations for your specific problem.

textile
soaps, oils, finishes

LAUREL SOAP MANUFACTURING CO., Inc.

Wm. H. Bertolet's Sons

ESTABLISHED 1909

Warehouses:
PATERSON, N. J.
CHARLOTTE, N. C.
CHATTANOOGA, TENN.

2608 E. TIOGA ST. • PHILADELPHIA 34, PA.

For more information, write direct or use Reader Service post card.

HOW TO GIVE YOUR FLOORS A FUTURE

(Above) Dark oil-soaked floor maintained by scrubbing. (Right) Similar area, same dirt conditions, but TENNANT dry-cleaned.

An example of results you can get with the

TENNANT *System* OF FLOOR MAINTENANCE

To be SURE of bright, easy-to-clean floors in your mill—both now and for *years* to come—no other maintenance method is more effective than the TENNANT SYSTEM.

It not only reconditions dark, spongy, water-softened floors . . . it restores original brilliance . . . hardens, seals and *protects* against dirt and traffic . . . cuts cleaning costs.

KEEPS FLOORS BRIGHT by fast mechanized dry cleaning. Eliminates scrubbing.

MAKES FLOORS EASY TO CLEAN. Dirt cannot readily adhere to smooth-sealed floors. Wipes off easily.

CUTS MAINTENANCE COSTS by saving manhours. Floors clean up like magic and stay clean much longer than when scrubbed. Floors stay dry, hard, lustrous; reduces slip hazards.

G. H. TENNANT CO.
2586 North Second Street
Minneapolis 11, Minn.

Write today!
Get typical case histories, photos, and NEW bulletin "How to Get Better Results In Textile Floor Maintenance."

TENNANT FLOOR MAINTENANCE *System*

Established 1870

OFFICES IN PRINCIPAL CITIES

and what-have-you is sent to the weave room. At that time the supervisor makes up a list of the looms in duplicate, showing the number of yards in seconds that we got from a certain loom and the cause of the second. The supervisor gives the slip to the fixer on that section and retains a duplicate. On that shift the list will show the imperfections on the two previous shifts. This list gives a follow-up of two shifts on any loom reported for imperfections, with the supervisor following up his regular routine check with the fixer on those imperfections for the two following shifts.

"At the same time we have what is called a loom layout sheet that we post at the loom with the imperfections and the coded cause. Each imperfection has a code number. We put the yardage and cause down in color—a different color for each shift—so that everybody there can see them. We check that loom continuously until we get a report of a good cut of cloth.

Sometimes something might happen to throw the cloth room a little bit behind the weave room, and there might be half a cut of cloth on the loom when the report is received. I can go in the weave room and tell exactly when a notice of the imperfection was received and know how many yards were woven after they were notified."

Coated Fabrics

(*Continued from page 129*)

fine-thread adjusting thumbscrews at each end, as shown in the accompanying drawing. The blocks should be 1 x 2 in. on the face, and 1 in. thick. The knife is 10 or 12 in. long, 4 in. thick, and 2 in. high. A rounded knife is used for this purpose.

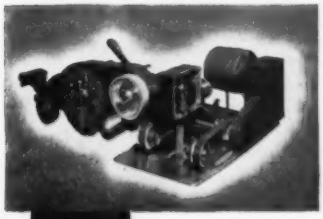
The film is cast by setting the knife for the required thickness with a standard feeler gauge, putting the compound in front of it, and drawing it slowly across the plate glass or the paper. (Casting paper may be obtained from the S. D. Warren Co., Sorg Paper Co., and other paper manufacturers.) The film and base are then transferred to the oven, dried, and cured or fused in accordance with the instructions of the manufacturer of the compound.

If a press is available, the best practice is to mold sheets from the fused cast stock, because this method will give better uniformity in gauge. However, many textile laboratories may not have this equipment, and the cast film will be satisfactory if care has been used in the casting and the samples to

SAVE UP TO 50% . . . OF PRODUCTION COST

produce superior fabrics

The McCreary Continuous Process† is the most advanced electronic and mechanical process for finishing nylon and other synthetic tricots or woven fabrics, and is the only complete vertical set-up of tenter frame, automatic feed, jet type dryer and setting unit.

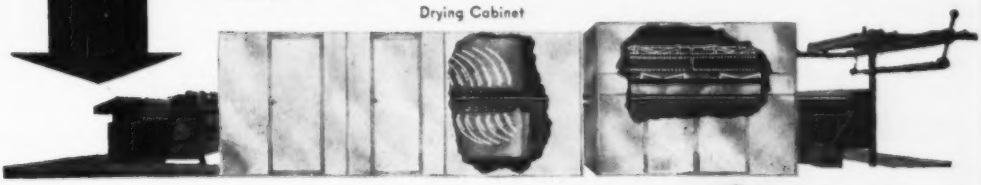


Close-up feed mechanism

McCreary Automatic Pinning, Overfeed

A new system providing definitely greater and fully controlled yields. It gives positive and accurate control of the feeding, which cannot be done by hand, and does it as accurately for tricots as for woven fabrics. The new supersensitive guider fingers with electronic controls and Dynamic Braking* permit very close accurate edge pinning of the finest cloth. Fabrics of any width can be handled automatically without distortion or stretching of the edges. By use of this feed, labor costs are substantially reduced.

Drying Cabinet



Calrod heaters and thermocouple

McCreary Electro-Setting

The electronic method for permanently setting nylon and other synthetic tricots after dyeing and while still on the tenter frame. The result is cloth superior in dimensional stability and hand. Radiant heat provided by G-E Calrod* tubular heaters, controlled by G-E Reactrol*, gives a temperature range to 1500° and produces uniform stepless heat. While the tenter frame is not in motion or when fabrics not requiring setting are being processed, the electro units are automatically raised. The average operating costs are only 50¢ to $1.00 per hour.

These units may be obtained individually for attachment to existing tenter frames.

Completely equipped with G-E heaters and controls

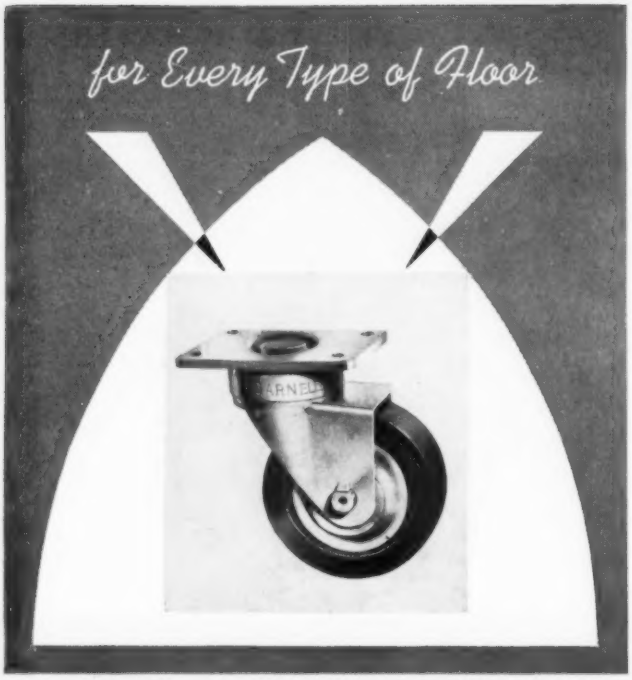
*Reg. U.S. Pat. Off. †Patents applied for

Send for free illustrated brochure on McCreary Continuous Process.

McCreary

MACHINE WORKS, INC. Cohoes, New York

MANUFACTURERS OF TEXTILE FINISHING MACHINES SINCE 1874



DARNELL CASTERS

For light, medium or heavy duty service Darnell Casters and Wheels are dependable — saving floors, equipment, money, time and temper.

Free Manual

DARNELL CORP. LTD. Long Beach 4, Calif. | 60 Walker St., New York 13, N. Y. 36 N. Clinton, Chicago 6, Ill.

be tested are carefully gauged in tests where thickness is important.

The actual test methods should, for ease of use and clarity, contain no information other than the specific details of the procedure to be followed. The utility of the tests and the interpretation of the results will first be considered, and then the actual test methods will be detailed as a supplement.

The % volatile substances is determined to establish comparative money value of the various compounds under consideration. Only the solids deposited on the fabric are of value as a coating, but the volatile portion may be necessary to serve as a carrier or to adjust the viscosity.

Specific-Gravity Test Important

The specific gravity is determined on the dry fused compound, and is expressed as a ratio of the weight of a given volume of material to that of an equal volume of water, both determined at the same temperature.

Specific gravity is of primary importance to the coater. However, to arrive at the correct interpretation of its effect, it must be considered in different ways. There are three different methods of selling coated fabrics. The first is to sell a material having a definite minimum weight of coating per square yard, i.e., a 4-oz., 36-in., 80x80 print cloth, coated to weigh 8 oz. per sq. yd. or a minimum of 4 oz. of coating per square yard. The third is to sell the same fabric with four mils of coating. Thus in the first and second instances, coating is sold by weight and in the third case, by thickness.

The specific gravity of filling materials, in the case of vinyl compounds, is higher than that of resin or plasticizer, and the fillers are the cheaper materials. In addition, if too much filling is used, it detracts generally from the physical characteristics of the coating. Since the compounds are practically always sold on a poundage basis, the filler definitely tends to lower the cost of the material.

Thus, the lower the specific gravity of the compound, the higher the justifiable price. However, if the coating is sold on a volume basis, the lower the specific gravity, the better the money value per pound of solids of the compound. When coatings are sold on a weight basis, the higher specific gravity decreases the cost of the coating, when comparisons are made on a dry-solids basis.

Clear vinyl-resin compounds generally have a specific gravity of approximately 1.25, while that of pigmented materials may run as high as 1.75. Since the specific gravity of

Which road do you travel?

Our service can help put you on the smooth, modern road of progressive business. All credit problems disappear . . . your financial requirements are met safely without resorting to outside borrowing . . . and management has the time and means to increase sales and profits.

WILLIAM ISELIN & CO., INC.

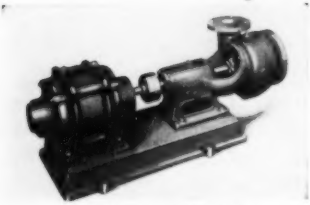
357 Fourth Avenue, New York 10, N. Y. • 200 Keeler Building, Grand Rapids 2, Mich.

FOUNDED IN 1908

"Buffalo" Tips on Better Pumping

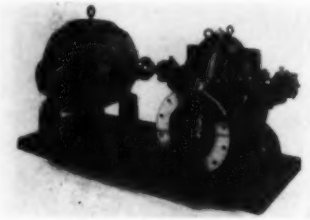
REGULAR PREVENTIVE MAINTENANCE

Keeps Your Pumps Performing!



FULL BALL BEARING

"Buffalo" Pump for hard service. Its bearings are oversize, capable of handling speeds up to 5000 rpm.



"BUFFALO" TYPE "SL"

Double Suction Pumps are among the most popular for humidifier and air washer service.

CLOSE-COUPLED

for cramped quarters! The Type CCL Pump is one of many models to suit specific needs.

● Even the best constructed pumps require regular servicing for efficient performance and long life.

The best way to insure the success of a preventive maintenance program is to set up a regular schedule for servicing and inspection. A qualified engineer who knows pumps and lubricants should be the one to set up this schedule.

The schedule would call for at least four inspections of each pump annually, to check on bearings, shaft alignment, packing, impeller and lubrication. The inspector makes a report of any conditions which need correcting —conditions requiring servicing, to the operating group; conditions requiring repairs, to the maintenance group. (Often, these reports prevent minor conditions from developing into major troubles).

The schedule for lubrication, as well as any operating instructions, should be posted plainly on or near each pump.

This is another in a series of messages by Buffalo Pumps, Inc. in the interest of conserving materials and industrial equipment.

"Buffalo"

BUFFALO PUMPS INC.

184 MORTIMER STREET BUFFALO, NEW YORK

Canada Pumps Ltd., Kitchener, Ont.

Sales Representatives in all Principal Cities

A BETTER CENTRIFUGAL PUMP FOR EVERY LIQUID

plasticizers varies, and there is some variation in density of commercial resins, small variations of density do not necessarily indicate conclusively that one compound contains a higher percentage of loading than another.

To summarize, the test results are used to determine by comparison the money value of compounds of different manufacture on a weight-per-unit-volume basis.

Beware of Nicks in Strength Tests

Tensile strength is determined in the usual manner (with a Scott tester) except for the fact that samples must be die-cut or molded to be absolutely free of nicks such as might result if they were cut with scissors or a knife. A small nick will permit excessive stretch of the film, and a tear is apt to result at that point. A tear will produce a lower tensile-strength reading than the actual strength of the compound. It also tends to increase the elongation. Tensile strength is normally calculated to, and reported as, pounds per square inch. This method compensates for variations in thickness of the specific sample under test.

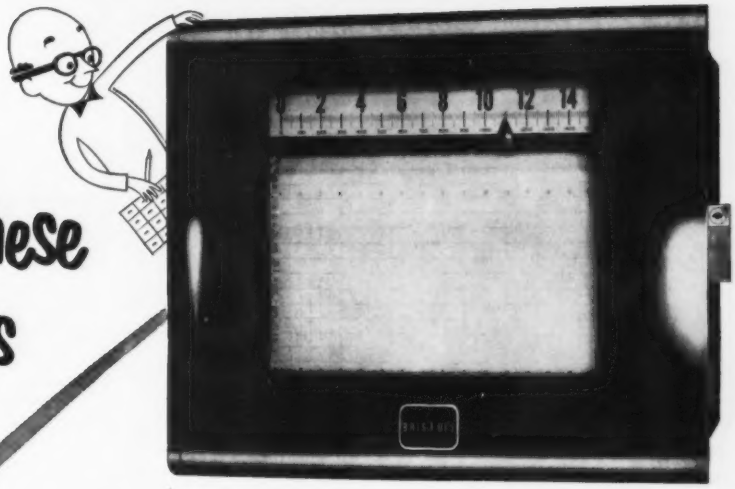
Elongation is determined in conjunction with the tensile strength. It is of value in comparing the kind and type of plasticization and loading of the various compounds under test. Thus, a film of one compound, which has a higher elongation than that of another compound, that has about the same tensile strength, would tend to give evidence of the use of a higher amount of a solvent-type plasticizer. A compound that gives a low tensile strength and is low in elongation is probably highly loaded.

Tear strength is also of value in determining the comparative degree of loading of the compounds under evaluation. A high tear value indicates a minimum of loading. In addition, a compound having a high tear-strength value will generally stand up better under flexing and folding after it is applied as a coating.

The percentage of non-combustible material is also determined as a criterion of the amount of filler in the compound. It does not, however, give any positive indication of the actual percentage of loading materials present in the stock, since many of these either gain or lose weight as the result of oxidation or decomposition in the ashing process. It is of very definite value as a control test once the compound to be used has been selected, since a variation in the ash content indicates a positive change or error in the composition of the coating.

Here's What Tests Can Tell You

If we now take these physical char-



Check these features OF THE BRISTOL DYNAMASTER FOR TEMPERATURE pH and SPEED

—the electronic master-mind for your measuring, recording and controlling problems

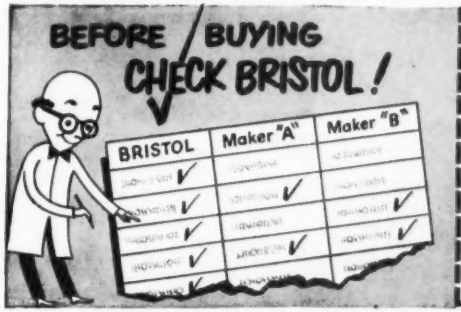
- ✓ Continuous-balancing electronic circuit responds instantly to minute changes
- ✓ All types of electric and air-operated controllers offered
- ✓ Available as a self-balancing bridge or potentiometer
- ✓ Trouble-free operation
- ✓ Electronic component uses vacuum tubes available at any radio supply house
- ✓ Full-scale pen travel in 7, 3 or ⅔ seconds
- ✓ Chart speeds from ¾ in. per hour to 7200 in. per hour
- ✓ Multiple recorders up to 16 points
- ✓ Components interchangeable and easily replaced on all Dynamaster models
- ✓ Immune to most vibration or shock
- ✓ Exceptionally unaffected by stray currents (1000 to 1 discrimination).

BRISTOL

FOR DETAILED PROOF *of the sensitivity, versatility and reliability of the electronic Dynamaster, use the coupon or write for Catalog P1245.*

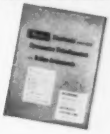
The dependable Guidepost of Industry

AUTOMATIC CONTROLLING, RECORDING AND TELEMETERING INSTRUMENTS



THE BRISTOL COMPANY
103 Bristol Road
Waterbury 20, Conn.

Please send catalog giving details of Dynamaster performance to:



NAME _____ TITLE _____

COMPANY _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

DANDUX CANVAS DOFF BASKETS

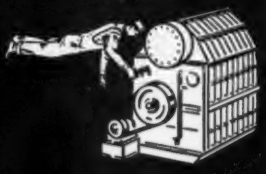
Aisle baskets and trucks. Proven far superior in all types of mill operations. Finest quality materials and construction.

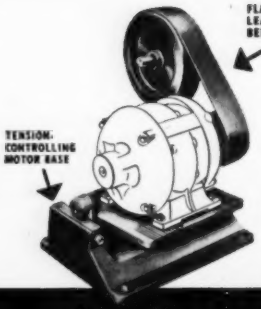
DANDUX

C. R. DANIELS, INC.

75 West St., New York 6, N. Y. Daniels, Md.
25 Huntington Ave., Boston 16, Mass. 121 E. Third St., Charlotte 2, N. C.

You'll Seldom See Your Maintenance Man Hovering Over A UNI-PULL DRIVE





A passing glance is usually all the attention a Uni-Pull drive needs from a maintenance man.

HERE'S WHY...The motor base automatically maintains belt tension...assures uniform pull around the pulleys...eliminates slide-rail tension-guesswork.

The flat leather belt pulls as a unit. No separate and uneven tensions. No danger of the misalignment wear you can get with multiple, groove-trapped belts.

If you're interested in years of service with minutes of maintenance, ask your leather belting supplier about Uni-Pull.

American LEATHER BELTING *Association*

Headquarters for Authentic Power Transmission Data

51 PARK ROW, NEW YORK 38, NEW YORK

AL-52

acteristics of the compounds under consideration and tabulate them: percent volatile substances, specific gravity, tensile strength, elongation, tear strength, and ash; and carefully compare the results first one with the other, and then in respect to the way each value effects the other, we can determine a great deal about how the compounds are going to compare after they are applied as coatings.

An initial indication of comparative money value of the compounds is also available.

Too much emphasis should not be placed on money value at this point, however, for there are many other characteristics that will also affect this factor. For example, the cost of various types of plasticizer that might be used in a compound may vary as much as 50¢ per pound, and the variations in price of pigments are even greater. Often these more expensive raw materials impart highly desirable characteristics to the finished coating, some of which may be of primary importance for a specific end use. The determination of the actual money value must, therefore, be a final consideration after a satisfactory coating has been established.

The viscosity of the compounds under consideration is of fundamental importance. The degree of viscosity required is dependent on the method of coating application to be followed in actual production, and specifications for viscosity are best established on the basis of actual practice on the plant equipment. It is obvious that variations in viscosity would greatly influence the way a compound would behave under a coating knife, and the effect of this characteristic on both quality and production costs of coating is considerable.

Unfortunately the viscosity of both organisol and plastisol dispersions tend to change as the compounds age. This viscosity change results from the fact that these compounds are dispersions as originally manufactured, but the solvent action of the plasticizers, which is gradually exerted on the resin on standing, cause it to swell with a resultant increase in viscosity Since the degree of effect is a definite variable, it is necessary to determine not only the initial viscosity but also the viscosity at regular intervals over the period in which the material might be held in inventory. This viscosity variation is, incidentally, one of the stronger arguments for the manufacture of coating compounds by the coater, since the necessity of maintaining large stocks of compound in inventory for any period of time is eliminated. However, many manufacturers of compounds of this type

"Nothing's too good for Snitley since he talked me into using Swift's Soaps!"

Perhaps our illustration is a bit far-fetched, but reports from customers in the textile business indicate that Swift's Soaps really fill the bill. They *stand out* in dyeing, fulling, scouring and other specialized applications.

Yes, Swift has the *right* soap for *every* textile need. And every soap in the Swift line combines excellent physical form with proper uniformity of composition for top performance on the job.

If you're faced with a unique, especially tough soap requirement, call on us. Our years of soap-making experience can help you find a soap that fits your particular operations.

Call SWIFT first for soaps

Listed below are some of Swift's fine soaps. You can order any one of them from Swift's distribution points coast to coast and expect immediate delivery.

Vertex Flakes
557 Flakes
White Ribbon Flakes
Wool Flakes

For more information, write direct or use Reader Service post card.

THE KNITTING MACHINE & SUPPLY CO. —

Present!

STOLL KNITTING MACHINES

SEE THEM AT THE SHOW
Booths 20-21

FOR BETTER GRADES OF KNITTED OUTERWEAR

• • •

HIGH SPEED MODERN FLAT SINGLE LOCK POWER MACHINE—ideally adapted for the manufacture of fancy trimmings—scalloped collars, rib bottoms and cuffs—so important for the manufacturers of fine gauge Sweaters on full fashioned or circular machines—REMEMBER "THE TRIMMINGS MAKE THE SWEATER".

MODEL J BOM/b is a fully automatic flat power machine with 4 bars, 12 carriers for sectional work operating at 15 full courses in fine gauges over 60" needle bed space with high and low butt needles.

STOLL ALSO MANUFACTURERS—

High speed narrow border machine — Full automatic single and double lock purl and Jacquard machines—Modern flat and links/links hand machines with improved pattern possibilities.

Sole American & Canadian representative

THE KNITTING MACHINE & SUPPLY CO
250 WEST BROADWAY NEW YORK 13, N. Y.
(Success. to the Grosser Ktg. Machine Co.)

Sterling Ring Travelers

PRICES

Price cutting doesn't always mean price savings, as you very well know.

Also a few pennies saved today may prove costly to you in the future, so check closely before you succumb to the price cutter.

M. H. Cranford	Box 204	Chester, S. C.
D. R. Ivester	Box 882	Clarkesville, Ga.
T. B. Farmer	Box 150	Langley, S. C.

STERLING RING TRAVELER CO.
FALL RIVER, MASS.

have developed them so that they have good viscosity-aging characteristics.

Other Tests Depend on End Use

So far, we have considered tests that are fundamental in determining the utility and value of the coating compounds for general use. There are a number of other properties that should be determined since they affect the value of the compound for specific applications, as well as indicating a general high degree of quality. These tests are again best made on samples of free film. Evaluation of the compounding without any possible misinterpretation as the result of the fabric backing is essential.

Hardness is usually determined by means of the Type-A Durometer. In compounds that are otherwise the same, hardness will vary with the kind of plasticizer used. Different types of resins and pigment will also affect this characteristic to some extent. Variations of the amounts of plasticizer have greatest effect on this property.

Stiffness or pliability is closely allied to hardness, and the proper combination of these two characteristics is essential but may vary greatly for different end uses. A coating for a table cover, where good drape is required, would not be suitable for luggage where abrasion resistance is of fundamental importance.

In general, the flammability of vinyl-resin compounds is lower than that of the fabric to be coated. It may be varied by formulation, from a film that supports combustion at a fairly rapid rate to one that will not support combustion at all, and will only melt and char when actually heated in the open air.

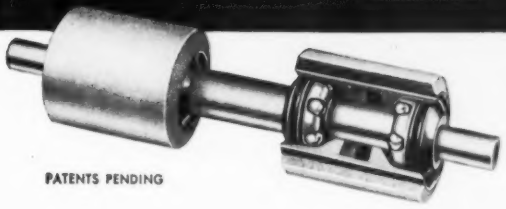
Low temperature resistance is a characteristic that is determined almost entirely by the type of plasticizer used, although the amount has some effect. Compounds can be produced that will withstand temperatures as low as −75° F. An impact-type test is most desirable, since most vinyl compounds will shatter under impact at a temperature several degrees above that at which they will crack when subjected to a simple fold. In most types of service, the coated fabric is more apt to be subject to impact when cold than to folding. For example, damage to coated fabric used for upholstery due to insufficient low-temperature resistance, such as encountered during shipment, is almost always the result of impact.

Crocking results from the use of pigments that tend to bleed to the surface in most instances, although it may be caused by poorly dispersed pigment or over-pigmentation.

Blocking is that characteristic

When you can't get new machinery, get New Productivity by

MODERNIZING WITH CLIMAX BALL-BEARING TOP ROLLS



PATENTS PENDING

Already serving more than 4 MILLION SPINDLES

MADE FOR

You can depend on Climax deliveries—and on these benefits:

100% saving in oil and oiling effort. Picking and cleaning reduced by 60% to 90%.

Production increased by less downtime, as noted above, and fewer ends down.

Yarn quality markedly improved: cleaner work giving improved appearance, improved deviation, improved break constant.

THEY PAY FOR THEMSELVES OVER AND OVER IN DIRECT DOLLAR SAVINGS

Climax Ball Bearing Top Rolls adopted by

Whitin

MACHINE WORKS

and supplied on Whitin machinery as standard where anti-friction rolls are required. Climax Rolls are available through Whitin Machine Works and all of their agents.

MACHINECRAFT, INC.

21 VERNON STREET, WHITMAN, MASS.

Northern Sales:
Richard K. Butler
P. O. Box 428
Whitman, Mass.

Southern Sales:
Watson & Desmond
P. O. Box 1934
Charlotte, N. C.

Texas, Oklahoma, Arkansas
Texas Roller Covering Works
2407 N. 17th St.
Waco, Texas

Peru:
William Crosby & Sons, S. A.
P. O. Box 2326
Lima, Peru

Cuba:
B. F. Deming
107 Massachusetts Ave.
Boston, Mass., U.S.A.

Belgium:
Firme Paul Pflieger
158 Chaussee de Courtrai
Ghent, Belgium

For European Service:
Victor Beecroft
Leathley, Otley, Yorkshire, England

Climax Ball Bearing Top Rolls are made for

Cotton System Spinning Rolls for all standard and long-draft systems
Cotton System Roving Rolls
American System Worsted Rolls
French and Bradford Worsted Rolls
Wool Spinning Rolls

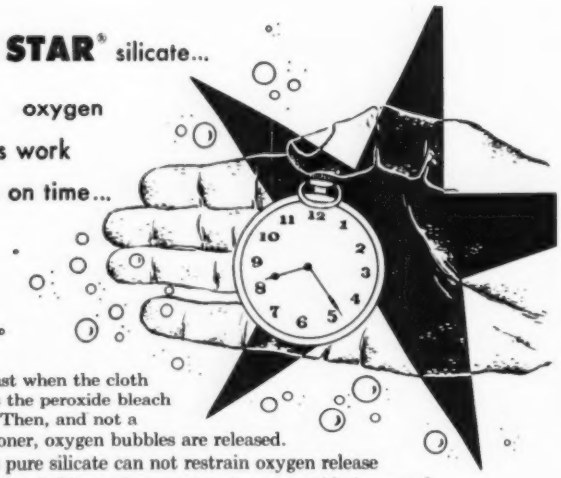
Climax Rolls are custom-made to suit your equipment and your weighting requirements.

with **STAR**® silicate...

oxygen

starts work

on time...



. . . just when the cloth enters the peroxide bleach bath. Then, and not a bit sooner, oxygen bubbles are released.

A less pure silicate can not restrain oxygen release until bleachable goods are present, so peroxide is wasted.

Star is sparkling bright, pure as it looks. It is specially processed to remove such impurities that might waste peroxide and also tender the cloth.

Place a trial order now.

Philadelphia Quartz Co., 1139 Public Ledger Bldg. Philadelphia 6, Pa.

PQ SILICATES OF SODA

PQ

SPHERICAL TANKS on Tubular Towers

• **The COLE Spherical Tank on Tubular Tower is a pioneer in its field. We design and erect special tanks of this character. It provides an attractive and serviceable unit —economical to maintain, efficient in service and pleasing in appearance.**

Write for special booklet on these modern welded Spherical Tanks which provide gravity water pressure and for copy of latest Cole catalog—"Tank Talk."

R. D. COLE MFG. CO.

NEWNAN, GA. *Established 1854*

TANKS TOWERS CYLINDERS VESSELS

wherein the film will adhere to itself at temperatures which might be normally encountered in service. This adhesion is an important property for a product that is going to be used for the manufacture of raincoats, for example.

Plasticizer migration is the tendency in some vinyl compounds for the plasticizer to migrate from the coating to the paint, varnish, or lacquer with which they may come in contact in service. For example, a pocketbook might be left on top of a varnished or lacquered piece of furniture for several days, and the finish be entirely ruined if the vinyl coating was improperly compounded in this respect.

Plasticizer volatility is the tendency of the plasticizer to slowly leave the coating by evaporation as the material ages. It is important since this loss affects such characteristics of the coating as flex and fold resistance, drape, pliability, and cold resistance. Volatility will also affect the amount of plasticizer that may be lost in the fluxing after coating.

Water extraction, soapy-water extraction, and oil extraction of the plasticizer vary in importance with the end use. All coated fabrics are apt to be subject to cleaning, but a tablecloth, for example, is subjected to repeated washing, while a cose cover for luggage is only cleaned occasionally. The effect of oil extraction is applicable to specialized uses such as hospital sheetings, bathinettes, and similar items. Since the effect of soapy water is more severe, this is usually the only water test made.

Straining tests are important for certain uses. Resistance to such stains as mustard, catsup, coffee, etc., should be determined for table covers and upholstery. Oil and grease resistance is of importance for truck and automotive upholstery. The necessity for these tests is obviously almost entirely dependent on the end use.

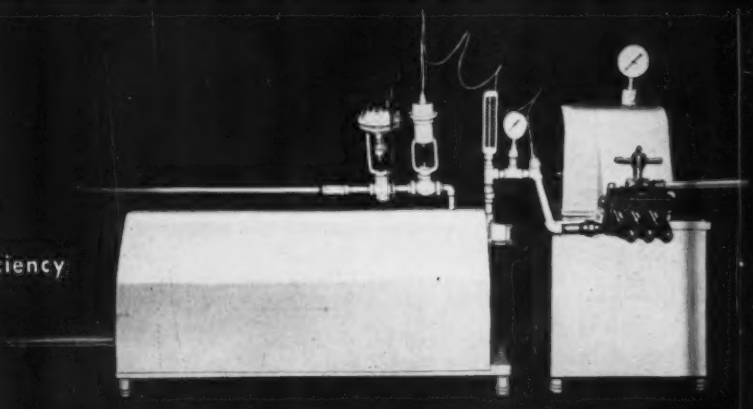
Sulfur staining comes in a different category. Certain lead compounds are very excellent heat and light stabilizers for vinyl resins. Unfortunately some of the compounds react very readily with hydrogen sulfite or sulfur dioxide, and the result is formation of brown or black stains. These stains have been known to be sufficient to cause complaints in industrial and urban areas, where traces of these gases are present in the atmosphere. It is worthwhile, therefore, to determine the extent of staining with hydrogen sulphide, and any compound that shows excessive staining should be avoided. Where only slight staining is observed, the probabilities are that no complaints will result.

Aging and accelerated aging are

Better Slashing and Weaving

with the SCOTT & WILLIAMS HYDROPULSE

- no waste of sizing
- saving on starch
- saving on steam
- better process control
- increased weaving efficiency



The Scott & Williams Hydropulse consists of a heat exchanger and a high pressure homogenizer designed to work in tandem.

The Scott & Williams Hydropulse is engineered specifically for textile warp size preparations. It automatically prepares homogenized size at the rate of slasher consumption.

1. You eliminate sizing waste. All the size mix goes to the homogenizer, and all the starch is used. There is no chance for starch to stick to cooking kettles as in older, slower, batch methods.

2. You save on starch costs. Use less expensive, thick boiling starch instead of costlier modified thin boiling starch.

3. You save on steam costs. Recent tests show *50% less* steam is required by the Hydropulse as compared with old-fashioned batch methods.

4. You get better process control. Major variation in size quality is eliminated because of more precise methods of mixing and handling.

5. You obtain increased weaving efficiency. Since only *fresh* size is used viscosity is closely controlled, and other troubles such as shedding, hard size and soft warps minimized.

All of these advantages add up to savings that soon pay for the installation (in less than a year in actual cases).

SALES AGENTS:

SOUTHERN SIZING COMPANY
East Point, Georgia

BRYANT CHEMICAL CORP.
6 North Street, North Quincy 71, Mass.

Send for technical and performance data.

PIONEER DIVISION

SCOTT & WILLIAMS, INC.

EMPIRE STATE BUILDING, NEW YORK 1, N. Y.

RUGGED in design . . . LIGHT in weight!
MILTON GIVES YOU TRUE
DIMENSIONAL STABILITY
without objectionable deflection or distortion!
it takes GOOD BEAMS to make good warps!
PROVEN IN SERVICE
warping unprecedented yardages of monofilament; fine denier, low turn nylon; and rubber yarns
WITHSTAND EXCESSIVE PRESSURES
MILTON NYLON & RUBBER TRICOT BEAM
Forged, heat-treated aluminum alloy heads and barrels permanently joined with continuous heliarc welds.
THERE'S A MILTON BEAM FOR EVERY APPLICATION . . .
permanent mold TRICOT BEAMS
SECTION BEAMS
WRITE FOR BULLETIN 49-A for complete information
MILTON MACHINE WORKS, Inc.
DESIGNERS – ENGINEERS – MANUFACTURERS
MILTON, PENNA.

NON-FLUID OIL
TRADE MARK REGISTERED

The All-Purpose Oil Can Lubricant

Even in this day of great technological advancements, a good deal of our textile machinery is still hand lubricated by oil can. NON-FLUID OIL, the dripless, waste-less lubricant, has proved itself for 55 years as practically a one purpose lubricant for oil can application (excepting for spindle lubrication).

This versatility of NON-FLUID OIL is the reason that today it is being more widely used than ever in the Textile Industry despite the terrific sales campaigns currently being staged for ordinary oils. Years of actual experience have shown that NON-FLUID OIL provides cleaner and better lubrication at less cost.

Write today for free testing sample of NON-FLUID OIL and information bulletin.

New York and New Jersey Lubricant Company
292 Madison Ave., New York 17, N. Y. Works: Newark, N. J.

WAREHOUSES: Atlanta, Ga.—Birmingham, Ala.—Charlotte, N. C.—Chicago, Ill.—Columbus, Ga.—Detroit, Mich.—Greensboro, N. C.—Greenville, S. C.—Providence, R. I.—St. Louis, Mo.

NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture. So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.

probably the most difficult and important tests to make and interpret on the compounds. Devices such as the Weather-Ometer and Fade-Ometer are of definite value for the purpose of comparison, but do not always serve as a true criterion of the actual aging characteristics. Outdoor exposure, indoor exposure in front of a window, and shelf or drawer aging tests should also be made. During artificial aging, fading, discoloration, bloom, and surface spew of plasticizer should be watched for and determined, as well as the ultimate breakdown of the coating compound. In comparing samples, changes in pliability and a comparison of the rate of change of this characteristic should be carefully observed. It has been noted that, in certain instances, bloom of waxes and certain types of plasticizer is more rapid and pronounced when the material is exposed indoors in front of a window or when stacked on a shelf or in a drawer, than in artificial-aging devices or from actual outdoor weather exposure. For this reason, tests of this kind are recommended. Usually any bloom of this sort will be visible two to four weeks after preparation of the samples.

The tests outlined above are ordinarily sufficient to determine the most suitable compound available for the purpose for which the coated fabric is intended. Special tests for specific properties, such as mildew resistance may be necessary for highly specialized military or civilian requirements. When tests of this kind are required, it is usually best to have them made by an outside testing laboratory since special equipment and techniques are needed to carry them out.

Cloth Specifications Important

Specifications for the cloth to be coated should be established. The general requirements that make a cloth suitable for coating have been previously discussed. Tests for width, weight, count, tensile strength, tear strength, and percentage of sizing should be made on the fabric. It is also desirable to determine the effect of heat on the physical properties. This determination is usually accomplished by heating the fabric to the temperature at which the fusion of the coating will take place, maintaining if for the required time, and then, after conditioning, rechecking tensile strength and observing any loss. The pH of the fabric should be determined. This should be between 7.0 and 7.5. A cloth that is acid in character will not withstand the heat of fusion as well as one that is neutral or slightly alkaline.

In evaluating the coated fabric, it

FAMOUS
THE WORLD
OVER
BUILDERS OF
Cotton and wool dyeing machines
for beams · packages
raw stock · skeins · rayon cakes
dye spindles · perforated tubes
centrifugal pumps · extractors
and dryers
Stienen Obermaier
Trade Mark
(Reg. Trade Mark)
EQUIPMENT
Stienen
LEAD WITH THE Leader
Obermaier
Standard Fabricators
INCORPORATED
355 Walton Avenue
New York 51, N.Y.
EXCLUSIVE SALES AGENTS OF OUR ASSOCIATES
Obermaier & Cie.
Neustadt Weinstrasse, Palatinate, Germany

Bendix-Friez

Suppliers to GOVERNMENT and INDUSTRY for 75 Years... to the ARMED FORCES through three wars!

Bendix Friez is part of a great industrial organization whose peace-time potential is being maintained while engaged in vital work for national defense. We are doing our utmost to deliver non-military items such as meteorological instruments, electronic devices, thermistors and a variety of other equipment consistent with our other high priority business.

We invite your inquiries . . . *write Dept. O.*

FRIEZ INSTRUMENT DIVISION of
1324 Taylor Avenue • Baltimore 4, Maryland

Bendix AVIATION CORPORATION

Export Sales: Bendix International Division, 72 Fifth Ave., N. Y. 11, N. Y.

Cut Your Materials-Handling COSTS with Roll-Easy Colson Casters

Model 3-408-16 caster with thread guards, designed especially for the needs of the Textile Industry.

Rolling stock that doesn't roll easily cuts efficiency and profits in your mill. Colson *specializes* in wheels and casters engineered for the Textile Industry. They roll easily over all floors, are rust-resistant—many models have thread guards. Colson also manufactures a wide range of trucks for the Textile Industry—hand trucks, platform trucks, box trucks, drum and barrel trucks and special devices. Write us or consult your phone book, for the Colson representative near you.

Write Today for Free 68 Page Catalog

THE COLSON CORPORATION
ELYRIA, OHIO
CASTERS • • LIFT JACK SYSTEMS • • INDUSTRIAL TRUCKS

is necessary to repeat some of the tests that have already been made of the base cloth and the compound film. The specification for the finished material should include width, tensile strength, tear, elongation, total weight per square and linear yard, weight of coating, pliability, crocking, and aging in all instances. Staining, blocking, cold resistance, flammability, oil extraction, soapy-water extraction, and hardness should be included if they are indicated as important in the effect on the intended use of the product.

There are also several tests that are only applicable to the coated fabric. Adhesion of the coating is determined as the pull that is required to remove a strip of coating 1 in. wide from the surface of the cloth. This test is accomplished by cementing two strips of coated cloth together, loosening the coating from one side, and then pulling them apart with the Scott tester. An adhesion test should be included in all coating specifications.

Flexing and folding tests are important in material to be used for upholstery and similar applications. They require special equipment that will be described in detail under methods of testing. It has been found, in general, that a vinyl coating, properly formulated and having good adhesion to the fabric, will not fail from these causes.

Bias strength and elongation give an indication of the strength and stretch of the film actually applied to the cloth in the form of coating. It is important as a quality-control test and is one of the best indications of the uniformity of the fusion, since the fabric contributes very little to the results of a bias pull.

The hydrostatic strength is the resistance that the coated fabric shows to water pressure without leakage or rupture. It is an important characteristic where waterproofness is a fundamental requirement.

Abrasion resistance is an important requirement for many uses of which luggage is a typical example. There are several different types of equipment available for determining this factor, some of which will be discussed in detail under methods of testing.

As mentioned in the discussion of tests for the compound, there are several special requirements for highly specialized uses. These include such tests as moisture-vapor permeability, gas permeability, etc.

Utilization of the test results is primarily a matter of judgment and the application of common sense. Many consumers of coated fabrics have specifications already prepared, listing their requirements for the intended

The HERR CONICAL RING

provides ideal conditions for the spinning or twisting of any yarn

To prevent yarn breakage, and obtain smoother, cleaner yarn with heavier, more uniform doffs you will need Herr Conical Rings. Tension of the yarn is equalized by the centrifugal force of the traveler which is outward and downward.

The space between the bottom of the ring and the bottom of the traveler is the "factor of safety" that permits the traveler to compensate for varying tensions of the yarn.

The HERR CONICAL RING provides the right angles for the traveler. The conical surface directs the centrifugal force of the traveler downward. The traveler rides on the top and conical surface of the ring.

Wear of the traveler is held to a minimum by a specially formulated oil carried in capillaries to the top surface and the conical surface of the ring.

The traveler distributes and rides on the microscopic oil film. Maximum spindle speeds are achieved. There is no rewicking of the Herr Conical Ring.

Ask for help on your problem.

Gentlemen:

Please send literature on Herr Conical Rings and Herr Flyers.

Name .....

Position .....

Company address .....

Our problem is .....

HERR MANUFACTURING CO., INC.

309 FRANKLIN STREET, BUFFALO 2, NEW YORK

FOR SPINNING AND TWISTING WORSTED, WOOLEN, RAYON, NYLON AND BLENDED YARNS OF ALL TYPES

Cut costs—stop errors!

Model 43-44

USE AMERICAN SPEED SET GEAR CONSTRUCTION

NUMBERING MACHINES

FOR MARKING TEXTILE MILL TAGS, TICKETS, LABELS, ETC.

Modern textile merchandising demands CLEAR, EASILY READ piece, lot and case numbers, size and yardage lengths, etc. Supply this demand and use the American Speed Set Gear Construction Numbering Machines. Such numbering with Speed Set machines can be done quickly and easily. Numbers change instantly with touch of fingers and ANY COMBINATION OF NUMBERS can be quickly obtained. All steel wheels, deeply engraved figures, self inking.

MODEL 42

Eliminate errors and see that your tags, tickets, labels, etc., are attractively and legibly numbered the SPEED SET way.

• WRITE TODAY FOR FOLDER describing these new machines used in Cotton, Woolen, Hosiery, Knit Goods, and Dyeing and Finishing plants.

AMERICAN NUMBERING MACHINE CO.

Atlantic and Shepherd Aves.

BROOKLYN 8, NEW YORK

use. If these are not available, study the end use of the coated fabric and from this analysis determine the characteristics that are necessary to do the job required, writing the specifications accordingly.

Selection of the coating compound to be used can now be determined, selecting first the compounds that have the required physical characteristics to meet the specifications established, and finally determining which of these compounds offers the best money value on the basis of solids and applied specific gravity.

Pump Failures

(*Continued from page 157*)

much friction on the slow side caused by insufficient cylinder lubrication or tight stuffing boxes.

The usual cause of this trouble, when it appears suddenly, is the failure of the water-piston packing on the fast side. When both sides run slow, the cause usually is stoppage of water or steam passages or an accumulation of water in the steam cylinders.

RACING. Racing is caused by lack of water. It may be due to a leak in the suction line, too high a lift, or a plugged strainer or foot valve. Often, a valve in the suction line or in another line connected to it is the source of the leak.

FAST AND SLOW. When a pump that has a long suction line runs alternately slow and fast, the cause is usually a high place in the suction line. Air will accumulate in one or more of these high places, and the pump will become temporarily air bound and pump air and water alternately.

STROKING. Pounding at the ends of the stroke results from insufficient cushion. The cushion valve may be opened too wide, or a leaky piston or valve may allow the compressed steam to escape.

Stroke pounding may also be caused by quick seating of the valves.

In slow-running pumps, pounding occurs usually only in discharge valves and results from insufficient air in the air chamber removing the cushion effect on the valves. The air chamber should be at least one-third full of air.

In fast-running pumps, pounding of the suction valves may be caused by the water in the suction line stopping too suddenly. To prevent this condition, install a vacuum chamber in the suction line near the pump.

When a pump fails to move when the throttle is opened, examine all

U. S. RING TRAVELERS

A "U.S." Service Man is right near you

When a U. S. Representative visits your mill, he offers a world of useful data on MODERN traveler practice — plus the finest travelers it is possible to produce.

For your BLENDS try "Bevel Edge"

The anti-friction design of these travelers, gives reduced end breakage, and in other ways helps spin blends more smoothly.

Prompt shipment from Providence & Greenville stocks

"A Style and Size for Every Textile Fibre!"

U. S. RING TRAVELER CO.

HOME OFFICE & FACTORY PROVIDENCE, R. I.
SOUTHERN OFFICE & WAREHOUSE GREENVILLE, S. C.

Write, wire or phone nearest office.

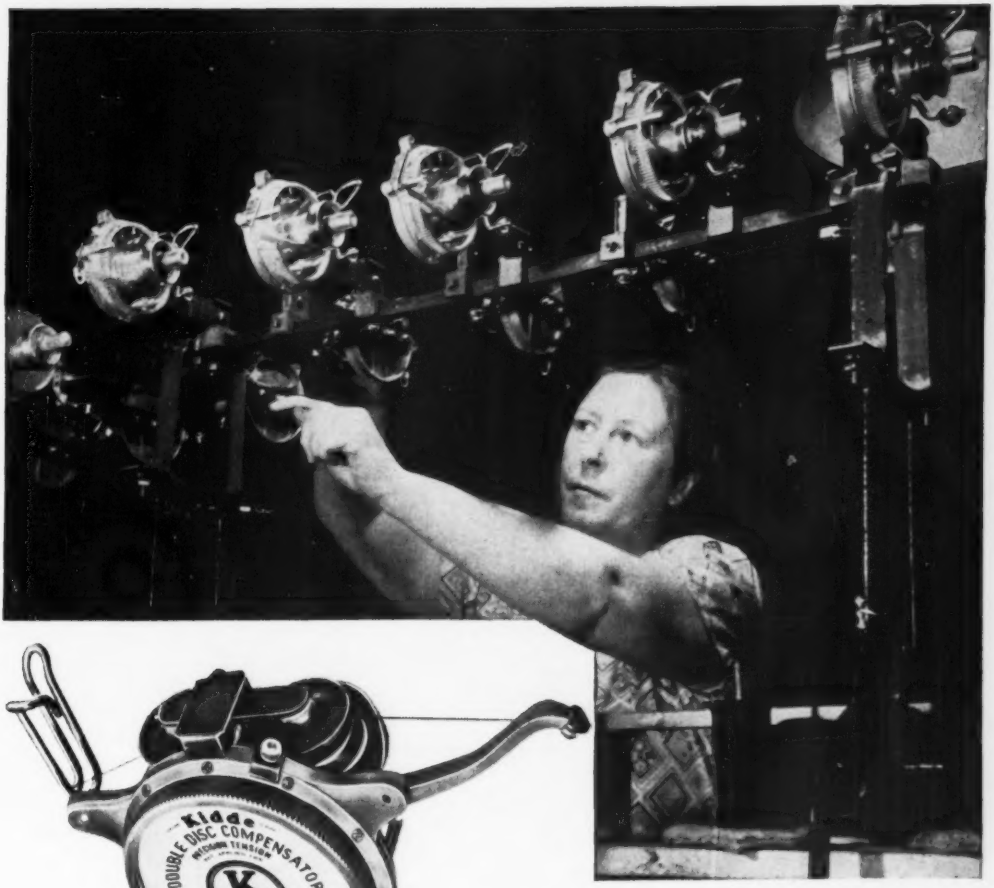
W. P. Vaughan, W. H. Rose
Greenville, S. C.—Box 1048—Phone 3-0915

O. B. Land
Athens, Ga.—Box 1187—Phone 478

L. H. Mellor, Jr.
Mid-Atlantic States, 123 Treaty Rd.
Drexel Hill, Pa.—Phone Hilltop 6-1563

H. R Fisher
Concord, N. C.—Box 83—Phone 8366

H. J. Smith
Providence—Box 1187—Gaspee 1-0100

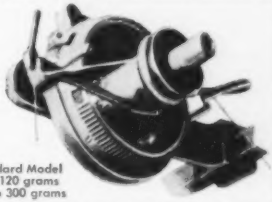


TENSION PROBLEMS?

Solve them with a **KIDDE** compensator

To maintain constant tension at speeds up to 1000 yards per minute, all you need is a Kidde Double Disc Compensator! It comes in two types—10 to 140 grams and 100 to 300 grams—and is especially suited for tender, high twist yarns.

For average speeds and tensions, one of the Standard Models—6 to 120 grams or 100 to 300 grams—is the answer to your tension problems. For quilling, warping of rubber yarns and winding of narrow fabric bobbins, there is a Kidde Tension Compensator that can improve the quality of the finished product. Write today for information.



Standard Model
6 to 120 grams
100 to 300 grams

Kidde

Walter Kidde & Company, Inc.
491 Main Street, Belleville 9, N. J.

YARN DYED ACETATE SELLS GOODS

Be original. Create popular fabrics by using our range of over 100 shades or have us match your color. We dye acetate yarn from any producer. Quick deliveries dyed and delivered on packages.

Atlantic Rayon CORPORATION

Dyers and Converters of Synthetic Yarns for All Industries

Plant at Providence 1, R. I.

NEW YORK REPRESENTATIVE

Empire State Bldg.

Fifth Ave., New York 1

★

valves in the piping; one or more will probably be found closed. The disk of the throttle valve may have become detached from the stem; and if the valve is placed so that the steam pressure is on top of the disk, the disk will remain on the seat. The steam cylinders may be full of water as a result of improper drainage, or the steam-chest valve may be slightly off the seat and admitting steam to both ends of the cylinder at the same time.

WATER WON'T FLOW. If a pump moves properly but will not raise water, the fault may be a leaky suction line or its connections, or the pump may be dry and need priming. If it still does not pick up water after it is primed, examine the suction or discharge valves. One or more of these valves may have become warped and dry, which will prevent them from closing, or they may have stuck to the studs. The strainer or foot valve may need attention.

Orlon Staple

(Continued from page 128)

When slashing is desirable, a number of satisfactory formulas are available. In both spinning and weaving, Orlon and blends of Orlon have run at generally high efficiencies. Weaving has been done at commercial speeds on various types of looms, ranging from lightweight silk types to broad, heavy suiting looms. In setting up the fabric construction, it should be remembered that Orlon shrinks very little; and an allowance for lack of fulling during finishing may be desirable, by means of "reeding in."

Throughout the dyeing and finishing operations, it has been found desirable, to achieve fullness and softness of handle, to finish under relaxed conditions, using as little tension as possible and avoiding heavy pressure, particularly in the presence of steam. Softeners, such as Zelan paste, are effective with Orlon, and water repellents of either the durable or renewable types can be readily applied with excellent results. Stiffening finishes, such as Methacrol FNH, may also be used, but the conventional resin finishes of the type used on rayon do not alter the inherent resilience of Orlon.

Fiber Excellent for Knitting

The warm, soft, bulky hand of Orlon makes this fiber of considerable interest to the knitting trade, and excellent knitting results have been

one hundred percent return in eight months

Unusual?

Yes. But several mills have made it, replacing five to ten older models with two new spoolers paying for themselves in LESS than 8 months.

These mills had figured in the extremely low capital investment, the vastly improved quality of the spools, and they had noted that the new spooler could do the work of two, three, even four older machines.

In short, they'd considered the radical changes the Model 60 spooler would make in their dressing departments . . . and all to be written off in just a few months. Then . . . they bought.

If YOU are interested, write . . . now.

DAVIS & FURBER MACHINE COMPANY

North Andover, Mass., Charlotte, N. C.

Textile Machinery, Card Clothing

DAVIS & FURBER SPOOLER

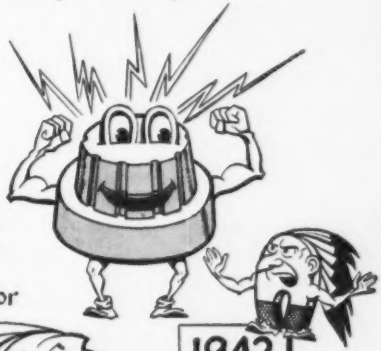
ERIEZ MAGNETIC ATTRACTIONS

MR. T.I.

ERIEZ MANUFACTURING CO., ERIE, PA., U.S.A. • PRODUCERS OF MAGNETIC SEPARATORS

WHY YOUR TEXTILE PRODUCTS NEED MAGNETIC PROTECTION.

This is the subject of a new 6-page, 2-color bulletin offered by **ERIEZ MANUFACTURING CO.** It is complete with descriptions and installation drawings of all **ERIEZ** magnetic equipment. Also shown are exact installation locations for **ERIEZ** magnets on all types of textile machinery. Get your free copy by mailing the coupon below.



IT'S A FACT... ten years ago ten electromagnets were sold to every one permanent magnet. Today thanks to **ERIEZ**, the pioneer and biggest factor in permanent magnetic separators, the **RATIO IS REVERSED!**

ERIEZ SPIKED APRON MAGNET is tough on metal entering waste products at the United Waste Company. Since installing **SPIKE**, fires due to sparks from tramp iron have been virtually eliminated ... garnett clothing life has been extended five times beyond previous limits!

ERIEZ Manufacturing Company, 501 East 12TH St., Erie, Pa.

My Contamination or Separation Problem is: _____

_____

Please Send Me the *FREE* Textile Bulletin

Name _____ Title _____

Company Name _____

Street _____

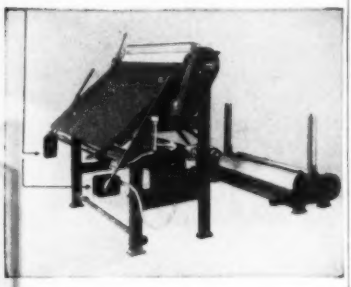
City _____ Zone _____ State _____ 52-D

For more information, write direct or use Reader Service post card.

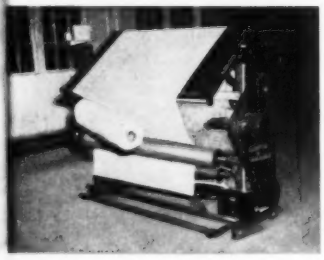
INSPECTION

A vital spot in the cloth room.

Included in our wide range of cloth room machinery are different types of inspecting machinery. Two are shown below.



Gearmotor Driven Inspecting Machine Electronic Control
(Patented)



S-2A Unispeed Inspecting Machines for rayons.

Can be supplied with light box under the table or vertically over the draft roll.

For details send for catalogue 7-51.

Curtis & Marble Machine Co.

72 Cambridge Street Worcester, Mass.
Southern Office
GREENVILLE, SOUTH CAROLINA

achieved on various types of knitting machines. Yarns of Orlon should be waxed before knitting. Machine tensions may be eased somewhat, but in general knitting performance is good under ordinary conditions.

Several Dyeing Methods Usable

With regard to dyeing, a full range of shades can be produced on Orlon staple. In general, these colors have fastness satisfactory for outerwear, including a wash fastness satisfactory for home-machine laundering. Most of these dyeings are produced by the cuprous-ion dyeing technique. By means of this technique, successful commercial-scale dyeings have been made on raw stock, top, yarn, and piece goods.

It is sometimes advantageous to dye Orlon acrylic staple by methods other than the cuprous-ion technique. For example, brilliant shades can be obtained by dyeing at the boil with basic colors. These colors have good wet-fastness properties and in certain cases moderate light fastness. Acetate colors can also be applied at the boil to obtain light to medium shades of good wet fastness and moderate light fastness.

Vat colors can also be applied at the boil to yield a number of good shades, although poor crocking fastness limits their use to light shades. A modified azoic-color technique produces brilliant full shades of scarlet and red.

For best results, Orlon staple should be dyed at temperatures as near the boil as possible. Therefore, closed equipment should be used. In addition, it is frequently advisable to use dyeing assistants, such as phenol or para-phenylphenol, to obtain better fastness and color utilization. Several mills are also finding pressure dyeing of raw stock and yarn to be advantageous.

Union dyeing of blends of viscose and Orlon staple can be accomplished by a two-bath method that applies acid color to the Orlon and direct or vat colors to the viscose. At present, the union dyeing of blends of wool and Orlon is restricted to blends containing less than about 20% of wool in certain light and heavy shades. However, research is in progress to permit the union dyeing of blended Orlon with wool as well as other fibers.

A large research effort is under way on new dyes and new dyeing methods for Orlon acrylic staple. This work has already led to many improvements in the dyeing technique for Orlon staple. In addition, the Du Pont dyestuff division has recently announced three new acid colors with outstanding light fastness for use on Orlon.

TEXTILE PROCESS ENGINEERS INC.

TPE

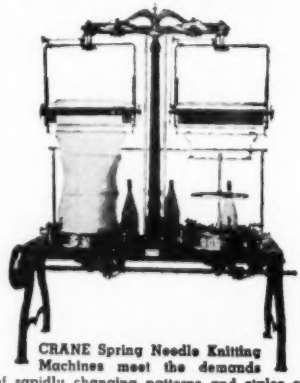
Specialists in technical and management controls with a 14-point survey which includes such important factors as:

1. Plant Layout
2. Checking Machine Capacities
3. Checking Processes
4. Revising Operating Methods
5. Setting Work Loads
6. Incentives
7. Executive Controls

Our business is to improve mill profits. Satisfactory results guaranteed. Client references upon request.

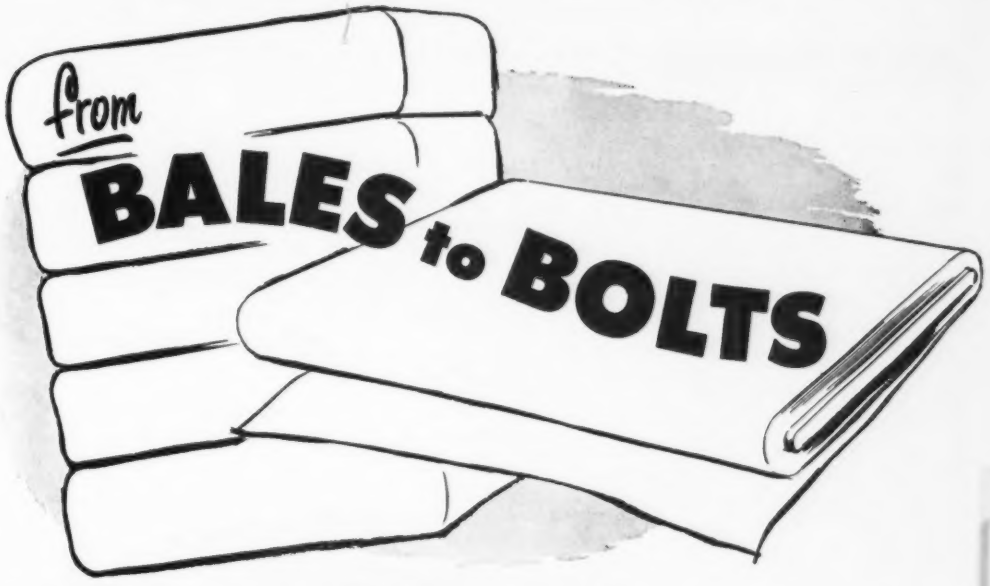
1329 HEALEY BUILDING
Atlanta, Georgia

1870 CRANE 1952
SPRING NEEDLE KNITTING MACHINES
Speed - Quality - Low Cost



CRANE Spring Needle Knitting Machines meet the demands of rapidly changing patterns and styles on all weights of fabrics.

CRANE
MANUFACTURING CO.
LAKEPORT, N. H.



A Jacques Wolf Chemical For Every Processing Need!

For any stage of textile processing, Jacques Wolf & Co. has a complete line of chemicals and specialties. Whatever your particular problem, Jacques Wolf & Co. will welcome the opportunity of submitting samples custom-formulated to meet your needs.

50th ANNIVERSARY 1901-1951

Write Jacques Wolf & Company for the Catalog of Chemicals and Specialties. No obligation, of course.

Passaic, New Jersey
Carlstadt, New Jersey
Los Angeles, Calif.

• Reg. U. S. Pat. Off.

JACQUES WOLF & CO.
Chemicals PASSAIC, N. J.

DE-SIZING

Amprozyme—For liquefaction of starches and proteins in de-sizing textiles.

SCOURING

Oratol L-48*—A synthetic detergent with excellent penetrating and emulsifying properties.

DYEING

Wetsit Conc.*—A synthetic aromatic compound for wetting out.
Monopole Oil*—A highly concentrated, double sulphonated, castor oil.
Hydrosulfite of Soda Conc.—For Vat Colors.
Apasol—A sulphonated higher ester with a high combined SO_3.

FINISHING

Dileine—An antifume agent for application with acetate colors.
Meleine—Gas fading inhibitor for acetate fabrics, including resin treated.
Cream Softener—In different strengths and varied degrees of alkalinity.
Lupomin*—A cation active softener and finish.

PRINTING

Pigment Whites—Carefully dispersed suspensions of white pigments with plasticizers.
Acetate of Chrome—Used for mordanting.
Hydrosulfite AWC—Sodium Sulphoxylate Formaldehyde.
Steam Black—A jet black for cotton, rayon, and silk.
Superclear*—A scientific textile printing gum.

TENSIONLESS OPERATION

WITH I. H. E.
DIRECT FIRED

RESIN CURING MACHINES

The I. H. E. Resin Curing machine is engineered to maintain selected high temperatures up to 450° F. Cloth is heated to control point almost immediately after entering curing chamber. Direct firing with gas or oil provides the cleanest, most efficient heat for resin curing. Forced exhaust removes resin fumes. These machines are available in widths and yardage capacities to meet all modern requirements. Write for full details today.

SPECIALIZED DRYING, CURING AND SINGEING EQUIPMENT FOR THE TEXTILE INDUSTRY

INDUSTRIAL HEAT ENGINEERING CO.
121 CLEVELAND ST
GREENVILLE, SOUTH CAROLINA

Circuit Maintenance

(Continued from page 155)

Wiring, especially in the wet-processing areas of a finishing plant, is often subject to corrosive action and at times presents a problem. Dundee has installed its wiring in steel or galvanized conduit. Specially treated wire is being used to reduce the corrosive action of chemical condensate in the bleachery and finishing plant.

Instruments and Meters

Instruments and meters are examined frequently to see if they are in good condition, are registering properly, and have no broken or cracked glass or damaged cases. Meters and relays are examined and tested at least once each year. Voltage regulators are periodically checked and readjusted if necessary.

Indicating lamps are inspected to insure that they properly indicate "open" and "closed" positions.

Fuse Boxes

Fuse clips and fuse ferrules are inspected regularly and kept free of dust and grease. Moist lint, loose springs, or excessive spring tension can cause serious trouble. These conditions could lead to what amounts to an open circuit or a voltage drop and may cause arcing and possibly a fire.

The electrical department carefully notes these conditions and schedules maintenance accordingly. Thorough cleaning done periodically, removal of fused contacts, polishing of contact surfaces, and voltage checks have become "musts."

Transformers

Dundee has standardized on transformer capacity so that spares can be carried in stock to meet emergency replacement.

The importance of adequate transformer capacity and voltage regulators is well illustrated by one experience at Dundee Mills. With both fluorescent and incandescent lighting in the mill, particular attention was paid to adequate illumination and diffusion of light. A check-up on light-tube replacement indicated that it was excessive. A study of the situation revealed that lights burned out too often because of wide swings in voltage, which decreased the life of the tubes. The mill installed voltage regulators and had no further trouble.

Maker's Charts Are a Big Help

Manufacturers recommend, and in most cases supply, trouble-shooting charts that can be framed and placed

BALMASEPTIC

Combines the fine qualities and delightful scent of Dolge premium BALMA liquid soap with Hexachlorophene, the antiseptic agent used in modern surgical soaps. Regular washing with BALMASEPTIC not only cleans thoroughly but deposits on the skin a non-irritating film which reduces bacteria as much as 95%. Here's a true deodorant for shower as well as wash-up use, insuring "round-the-clock freshness."

Efficent dispensing equipment available. Ask your Dolge Service Man for demonstration.

dependable DOLGE
WESTPORT, CONNECTICUT

IT'S WHAT IS IN THE DRUM THAT MAKES THE DIFFERENCE

SCOUR BLEACH No. 3

For Synthetic Fibres Which Are Normally White

Gives a clean bottom for pastel shades or bright colors

•

ECONOMICAL

Send for Sample

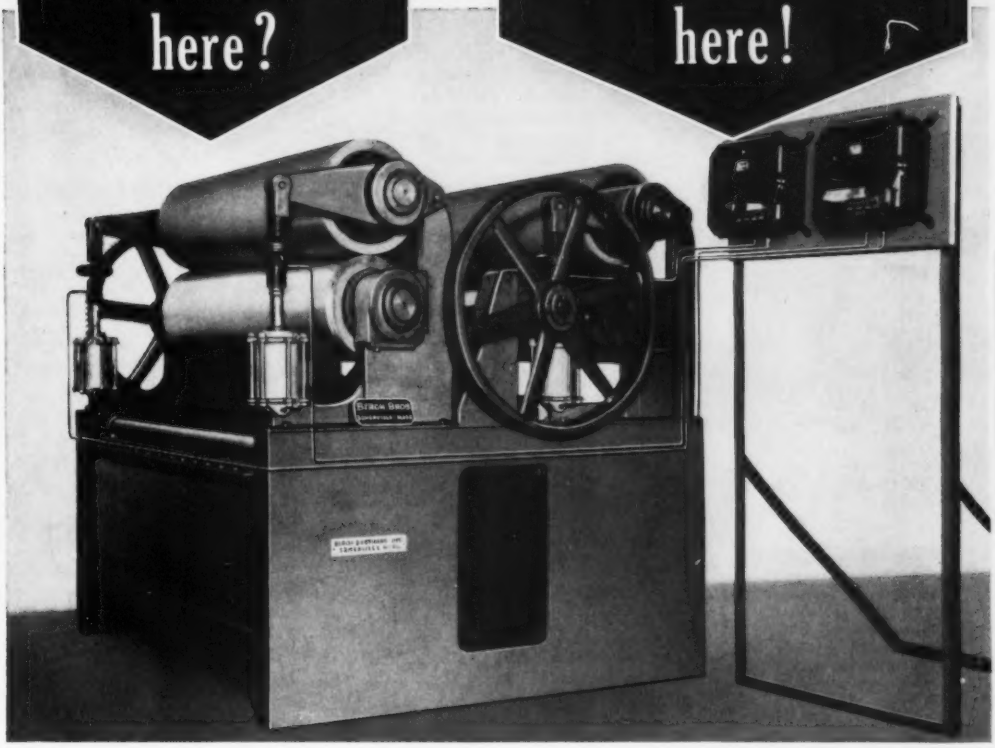
So. Office - 205 S. Church St., Charlotte, N. C.

RICHMOND OIL, SOAP AND CHEMICAL COMPANY INC.

Export Agents
HOWARD G. GODFREY AND CO., INC.
456 Fourth Ave.
N. Y. 16, N. Y.
Cable Address
Godfreyorn

What pressure are you getting here?

Taylor tells the actual pressure here!



Taylor Volumetric Elements on the new Birch Brothers Tandem Mangle let you know exact roll or nip pressure at any time, let you duplicate just the squeeze you want for any type or style of cloth.

HERE'S HOW IT WORKS: The actual pressure applied to the rolls is measured by Taylor's volumetric elements right in the line of thrust . . . one on each end of each roll. The measurements are transmitted to Taylor two-pointer indicators that show actual pressure at each end of the roll. Total pressure is the total of two measurements.

THE RESULT: You read actual pressure, instantly. You know if pressure is uniform throughout the roll, and you know exactly the pounds of pressure being exerted.

Taylor volumetric elements for measuring and controlling roll pressures in many textile applications have been thoroughly field tested in many textile mills. Units are available for load measurements up to 200,000 lbs. and tensions from 5,000 to 20,000 lbs., with remote indication or easy-to-read dial on the unit itself.

This is just one example of how Taylor Instruments can protect quality, cut operating costs too, in most every phase of textile manufacturing. Incidentally, temperature and level controls are recommended for mangles of this type. Ask your Taylor Field Engineer, or write: Taylor Instrument Companies, Rochester, N. Y., and Toronto, Canada.

Taylor Instruments
MEAN
ACCURACY FIRST
IN HOME AND INDUSTRY

For more information, write direct or use Reader Service post card.

REVERSIBLE FOR

LONG WEAR

Super-Stroke
Fibre Reinforced
SWEEP STICKS

The exclusive 3-point fibre-flex suspension design of Super-Stroke Sweep Sticks gives outstanding wear . . . and the unique reversible feature doubles its life again! Made of finest, ski-quality hickory with pressure bonded fibre sides and inserts that are locked to the wood forever. For top performance, insist on Super-Stroke Sweep Sticks. Order today from

NORRIS BROS.
GREENVILLE, S. C.

on or near each piece of equipment. These handy checklists make inspection and repair easier and save considerable time.

Another helpful device in the electrical department is maintenance of historical records for each piece of equipment. The small cards provide space for recording data to show date of inspection, parts replaced, and notations of trouble and remedy. These data are a great help in tracking down chronic trouble and locating the cause.

While Dundee does a great deal of repair work in its own shops, major repairs and rewinding of motors and transformers are done by outside concerns. Spare parts, fuses, cables, terminal boxes, and other electrical equipment and supplies are carried in adequate stock to meet normal maintenance and replacements.

Daily, weekly, monthly, and yearly inspections of all electrical apparatus and equipment are made. Visual inspection is continuous. When any processing equipment is temporarily shut down, the electrical department makes a thorough check of all electrical equipment pertaining to that unit. This inspection is in addition to the regularly scheduled inspections.

Since institution of the present system, the different plants have not been troubled with major breakdowns or power failures.

Faulty Sliver

(*Continued from page 139*)

trumpets from calender rolls varied and in most cases was too great. Step gauges for the length of stock being run were used for setting trumpets. On the other hand, clearer cloth was in good condition but needed turning in many cases to present a new nap to the rolls. The use of a stiff brush for cleaning clearers and raising and retaining nap was initiated.

Frame fixing, in short, appeared to be carelessly done. Proper instructions to fixers and closer supervision by second hands before long improved the operation and the product.

Further Improvements

An examination of lubrication methods showed many oil holes plugged with dirt. Oilers were supplied with sharp-pointed wire hooks to clean out oil holes before applying oil. Wear on many bearings was proof enough that oil had not been reaching the bearings. Oilings schedules as planned would have furnished sufficient lubrication if followed faithfully. A closer day-to-day check on

NEWEST
Anti-Static
Treatment for
Synthetics

dextrol
LEKTROSTAT®

Case of the Lively Filling Yarn

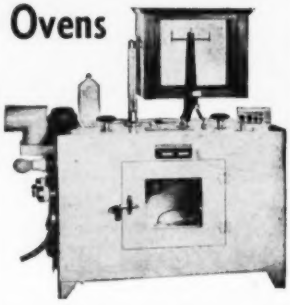
Ballooning of low twist and kinking of high twist yarns and sloughing off the quill was solved by . . .

1 part Lektrostat to 6-10 parts water, applied from bottle and wick attached to the quilling machine.

Give us your problem . . . write

DEXTER CHEMICAL CORP.
TEXTILE CHEMICAL DIVISION
P. O. BOX 1, BLVD. STA. NEW YORK 59

Textile Testing
Ovens



For *accurate* testing of water content in yarn. The 8-basket oven, with 3" x 3" baskets, may be changed to 6 baskets, 4¼" x 4¼" both 6" deep. Occupies table space 20" x 40".

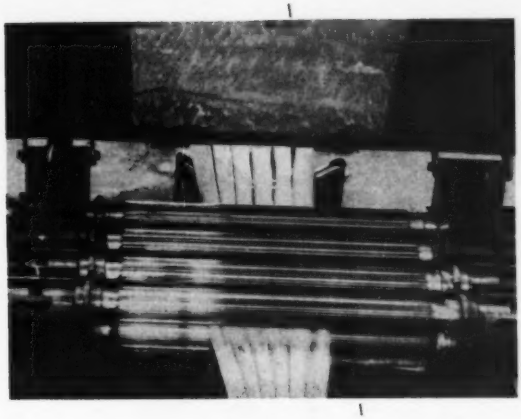
EMERSON Ovens

Are built in different types to handle wool, cotton and silk. Baskets are designed specially for each class of work. Write for details on EMERSON OVENS to fit your process.

EMERSON APPARATUS CO.
177 Tremont St., Melrose 76, Mass.

Ideal High Speed Ball Bearing Drawing Rolls*

Cost Less to Buy
Cost Less to Run
...and Make Better Yarn



These rolls can be ordered on M. R. O. as repair and replacement parts provided your old rolls are no longer serviceable.

Cost less to buy

Actual production figures from many mills show that two Ideal Drawing Roll units outproduce three of any other make. In many cases they produce more than four of the old kind. You save money when you replace your worn out drawing heads with Ideals, because you need fewer of them.

Cost less to run

Because of Ideal's unusual construction the rolls are automatically aligned and synchronized at all times and require practically no attention. Actual production figures show an average reduction of over 58% in up-keep . . . and over 43% saving in power.

...and Make Better Yarn

The perfect alignment and synchronization of Ideal Drawing Rolls prevents cutting, mauling, or bruising of fibres and eliminates thick and thin places in the roving. Roving drawn on Ideal units shows 26.9% less variation and 7.4% greater breaking strength. This improved drawing results in fewer ends down on fly and spinning frames.

Ideal High Speed Ball Bearing Drawing Rolls will cut your costs and produce better yarn. Write for full information today.

Ideal Industries, Inc.
Bessemer City, N. C.

*Patented

For more information, write direct or use Reader Service post card.

NEWEST
Anti-Static
Treatment for
Synthetics
dextrol
LEKTROSTAT®
GELATINE SIZE
and LEKTROSTAT GY
LEKTROSTAT GY, newest of the Dextrol LEKTROSTAT anti-static agents . . . is hand-tailored for use with Gelatine size mixes for sizing acetate, nylon and other synthetic fibers. In the size mix, LEKTROSTAT GY not only reduces static on fibers, but also acts as a warp softener. These properties are combined to give you real savings and improvement in your weaving. Write for sample today.
Give us your problem . . . write
DEXTER
DEXTER CHEMICAL CORP.
TEXTILE CHEMICAL DIVISION
P. O. BOX 1, BLVD. STA. NEW YORK 59

Weave Mills
that require
PAPER FILLING
Rely on
LAZENBY WINDERS
For hard or soft twist, crushed or paper ribbon, we can supply Cop & Bobbin Winders to produce maximum yardage & uniformity.
Send us a small supply of your paper and we will wind & return with Test-Wind Report and Catalog.
F. A. LAZENBY & CO.
3106 Elm Avenue
BALTIMORE 11, MD.

oil holes by the superintendent was recommended.

In a thorough check for cleanliness, fluted rolls and calender rolls showed up as having suffered from a lack of proper scouring. Mill schedules called for scouring two frames per week, and this schedule was increased to three frames per week to cover all frames within a 6-wk. period.

It was recommended that in scouring, all rolls should be removed from the stands. All necks, flutes, stands, bearings, and gears were to be thoroughly cleaned. Special attention was to be given to the correct setting of all gears, studs, and bearings when the frame was being set up after scouring. Mill schedules call for clearer picking every 2 hr., and this frequency was found sufficient for good work if properly done. Picking clearers on the doff was recommended for preventing clearer waste from getting into the sliver.

Job Loads Revised

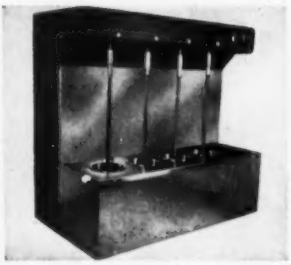
Each drawing hand formerly took care of nine breaker and nine finisher deliveries. The frame production was high, but the jobs were not excessive. Through a rearrangement of job layout, with each hand having either 18 breaker or 18 finisher deliveries, a reduction in the walking required on the job was possible.

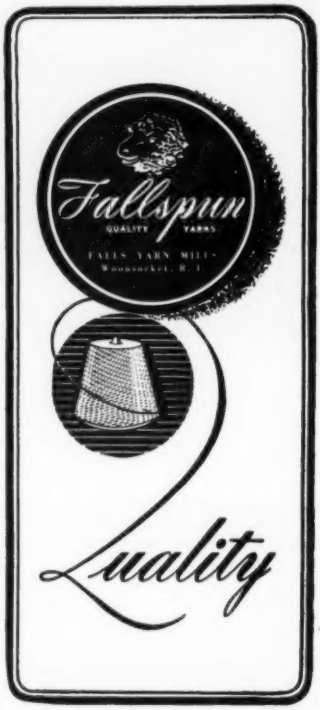
All finishing drawing was formerly weighed twice a shift, and three consecutive breakers were weighed once a shift. Four slivers were weighed together from each frame and the average weight taken. The mill decided that routine weighing of breaker drawing could be omitted and that six individual weighings from each finished delivery could be made and recorded. This system has been found to detect any abnormal variation in deliveries. Sheet-metal plates were fitted to the ends of the sizing board to prevent wear from constant use and to make weighings accurate.

The practice of correcting all drawing sizings to the prevailing moisture regain before any gear changes were made was started. This regain correction eliminated the need for many indicated gear changes in sudden weather changes and prevented many variations in roving sizes.

The mill's past record of card-sliver and drawing-sliver sizings showed only a small average variation. The older method of weighing four slivers together failed to show high and low weight in individual slivers. Steps were taken to have regular routine charts made on the sliver evenness tester in an effort to locate and correct variations.

Records of dry- and wet-bulb hy-

THE
TERG-TO-METER

A device for:
1. Simulation of home washers of agitator type on a laboratory scale.
2. Evalution of Detergency.
3. Fastness of colors to laundering.
4. Redeposition of Soil.
Write for literature and prices
UNITED STATES
TESTING COMPANY
INC.
1750 Park Avenue
Hoboken, New Jersey



Call SOLVAY First

TRADE MARK REG. U. S. PAT. OFF.

For These

Textile Chemicals

SODA ASH
CAUSTIC SODA
LIQUID CHLORINE
SODIUM NITRITE
POTASSIUM CARBONATE
NYTRON*

Because . . . Solvay textile chemicals are uniform, fine quality products . . . BECAUSE Solvay's *exclusive textile* Technical Service offers valuable assistance on the proper use of these chemicals in your operations . . . BECAUSE Solvay's thirteen sales offices and nation-wide organization of distributors is ready to serve you promptly and courteously . . . BECAUSE you get fast, dependable delivery service from Solvay's convenient plants and more than 200 stock points.

SOLVAY SALES DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 Rector Street, New York 6, N. Y.

BRANCH SALES OFFICES

Boston • Charlotte • Chicago • Cincinnati • Cleveland
Detroit • Houston • New Orleans • New York
Philadelphia • Pittsburgh • St. Louis • Syracuse

SOLVAY
Alkalies Chemicals
Since 1881

Caustic Potash • Chlorine
Potassium Carbonate • Nytron
Calcium Chloride • Sodium Nitrite
Sodium Bicarbonate • Formaldehyde
Specialty Cleansers • Methanol
Ammonium Bicarbonate
Caustic Soda • Para-dichlorobenzene
Ortho-dichlorobenzene
Monochlorobenzene • Soda Ash
Ammonium Chloride

* Reg. U. S. Pat. Off.

For more information, write direct or use Reader Service post card.

SEE C-D-F FOR FIBRE

ROVING CANS — STRONG AND SMOOTH!

For materials handling equipment specify C-D-F Vulcanized Fibre receptacles. Nothing beats fibre for economy and long life.

Material is tough and mar resistant. Trays, boxes, baskets, cans, barrels. C-D-F builds them all from light, sturdy fibre. You move materials, not useless weight.

LOOM PARTS—ALL NON-METALLIC!

Vulcanized Fibre bushings, washers, binder pins. Fibre cloth roll bearing blocks. Special parts that C-D-F accurately machines. Order by original part number and maker, or send us the old part.

C-D-F's new Southern warehouse is located at Spartanburg, S.C. Celoron gear stock always immediately available. Phone: Spartanburg 3-6397.

WRITE NOW! Write Textile Section, C-D-F, for catalogs showing Vulcanized Fibre receptacles, Dilecto laminated plastic materials, Celoron silent gear stock . . . all made by C-D-F to save you money. *Free 64-page booklet on machining plastics will be included!*

CDF *Continental-Diamond Fibre Company*

NEWARK, 55, DELAWARE

grometer readings showed that generally the relative humidity was held close to the card-room standard of 55%. Extreme, sudden changes in outside weather at times were found to cause large variations in relative humidity. There appeared to be no way of correcting this occasional variation with the type of humidifying system already installed.

Going Into Tricot?

(*Continued from page 107*)

ing, and coning for your operation, you'll need floor space in a ratio of 1:3 to your knitting, i.e. approximately 300 sq ft. per machine for knitting to approximately 900 sq. ft. per tricot machine for the above four operations.

Who Will Do the Finishing?

Finally comes the problem of finishing your own tricot fabric or having it commission-finished. Obviously, here again you are in need of more floor space and equipment, not to mention personnel, unless you already operate a finishing unit that could handle the additional, and somewhat different, finishing.

Building a separate finishing unit poses the problem of water, for one thing. Approximately 250 lb. of water is required per lb. of cloth finished. A filtering system of 1,000 gal. per min., as a minimum, should be provided. Your water supply must provide between 12,000,000 and 15,000,000 gal. per day.

Whether you already operate a finishing unit or not, you will probably have to provide a special dryer or pin tenter to handle your tricot production. This machine will be the key to your production.

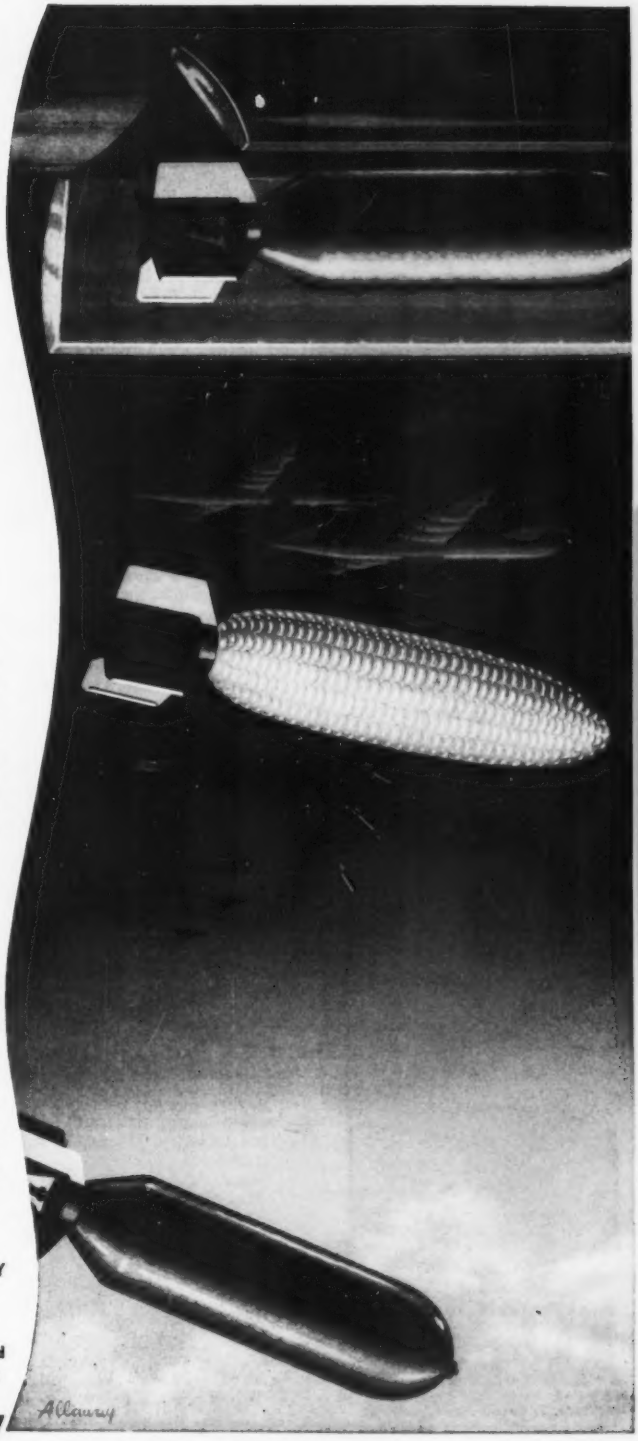
The size of your tricot operation will affect the economy of finishing. Obviously, a fairly small finishing unit can handle the production of many machines. Just how many depends on the styles you are producing, but you will probably find the minimum number of tricot machines required before a profitable finishing operation can be maintained is about 50.

Quite a lot could be said about tricot finishing, as it is a subject in itself, and as such should be carefully investigated, if consideration is given to this operation.

How Rapid Is the Return on Your Investment?

The answer to this question will not be the same for everybody, as only you can determine your costs. General market conditions, of course, will affect the answer to a great degree. However, the knitting of tricot fabrics offers a more rapid return than the

What's corn doing 35,000 feet up?



The casing of the bomb . . . possibly the high explosives inside . . . both require the use of special corn products in the manufacturing process. These, and hundreds of other corn products, have been developed by the continuing basic research in corn that serves all American industry . . . serves you.

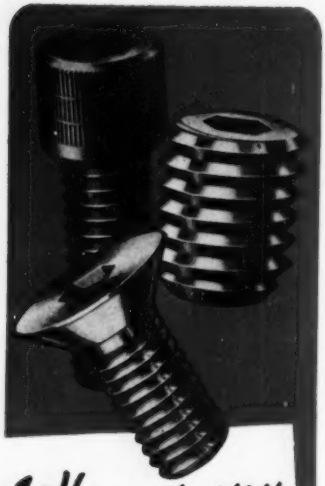
Corn products in textiles

In the textile field starches, gums and dextrines provide superior formula ingredients for many textile processes. New techniques involving the use of corn products are being developed as part of a continuing research program at Corn Products Refining Company.

● If you have a production problem why not check with Corn Products. A complete line of corn products for every purpose is available. Technical service is yours . . . no obligation, of course.

CORN PRODUCTS REFINING COMPANY
17 Battery Place, New York 4, N. Y.
Manufacturers of

GLOBE brand dextrines, gums **GLOBE brand starch** **EAGLE brand corn starch**



Wherever you use fasteners

√ . . . . . under vibration
√ . . . . . under strain
√ . . . . . in limited space
√ . . . . . for fine adjustment
√ . . . . . in inaccessible places
√ needing strength in small sizes
√ . . . . . in compact design
√ . . for maximum holding power
√ . . . . . for fastening thin pieces

. . . use genuine
ALLEN ⬡ HEAD
socket screws and keys

Class 3 fit, quality controlled uniformity and strength, wide range of standard sizes.

WARNING
Allen-Type screws aren't necessarily Allen-Made.
Get genuine Proven-Found Allen ⬡ Head screws in this black and silver box.

Sold only thru leading
INDUSTRIAL DISTRIBUTORS
ALLEN ALLEN HEAD
MANUFACTURING COMPANY
Hartford 2, Connecticut, U. S. A.

throwing or finishing. You could normally look for your return in the knitting investment in approximately one-third the time it would take for the throwing and the finishing investment to be returned.

Tubular Knitting

(*Continued from page 111*)

A comparable assignment would be four 12-feed or four 14-feed machines that operate from 35 to 45 rpm. About the same poundage will be produced, and the knitter will creel about 104 cones per shift and will doff about 13 times a week.

These Factors May Alter Basic Workloads

1. Operator efficiency. If a knitter wants to and is capable of handling more machines, he ought to be allowed to make full use of his capabilities.

2. Maintenance program. If you have a good maintenance program, your machines should run at high efficiencies. Rest time and frequency of inspection can often be increased in such cases.

Who Does What At Griffin

Knitter—creels yarn, doffs fabric, blows off machine, lubricates needles, wipes off excess oil.

Fixer—responds to knitter's flags is responsible for all special controls, tension regulators, etc. Fixer is also responsible for the inspection and adjustment of all machine parts.

7 F.-F. Pointers

(*Continued from page 115*)

aids employee morale, which in turn means increased production and higher quality.

7 How Many of These New Developments Are You Using?

Loopless toe. Elimination of the looping operation is saving full-fashioned mills from 10 to 15¢ per doz. For the full story, refer to TEXTILE WORLD, August, 1951.

Presetting. Increases in seamer production, finer stitches, and fewer pulls and fish-eyes are some of the advantages of presetting nylon hosiery. This development was presented in detail in TEXTILE WORLD, October, 1951.

Heating cable. Elimination of bothersome contraction and expansion on full-fashioned machines is now possible by using a simple heating cable, full details of which were covered in TEXTILE WORLD, December, 1951.

Single-Head F.-F. Machine

(*Continued from page 109*)

leg yarn has come out of action, there are three to five courses knitted. Then narrowing begins. The narrowing points narrow on every course for 84 to 86 courses and then on every other course for 64 to 66 courses. At the end of the last narrowing, a loose course is made. This loose course is the looper's course.

There are about 25 courses knitted for looper's waste. After these are knitted, the carriers and the narrowing points go back to their home position.

The machine automatically resets itself to begin another stocking. The sinkers are slurred from right to left, lacking about 3½ to 4 in. of slurring all the way across. If the machine doesn't stop off at this setting, you must reset the machine.

To Reset the Machine—

1. Slur the machine until 3½ in. of sinkers are forward from the right.

2. Push back on the chain-wheel brake-shoe lever (painted red) with your left hand. With your right hand, turn the chain-resetting crank (painted red) to the left until the idler-button lever resets on the flat starting button (painted red) on the chain.

3. Set the idler-ratchet wheel (painted green) by depressing the idler-friction lever (painted green) and rotating the idler-ratchet wheel in the direction of normal motion until the resetting stop engages. Note: Release the idler-ratchet before you release the idler-friction lever.

4. Rack the control shaft (painted blue) by hand to the starting position, which is marked by an "O" on the control-shaft index wheel (painted blue).

5. Slur the machine by hand from right to left until the needles have gone all the way down and come back up until the head of the needles are even with the sinker tops.

6. In this position, the pattern drum can be racked freely. Insert the pin (painted yellow) on the end of the pattern drum into the hole in the handle (painted yellow). Pull up and push down on the handle to set the pattern drum. When the drum readers (painted yellow) are opposite the small screw (painted yellow) on the drum, the racking pawl (painted yellow) should just fall off the tooth beside the small screw.

7. Turn the machine by hand until the needles are all the way up and the sinkers are slurred a little from the end. Then place your left hand between the hook-up straps, fingers down and thumb up, so that you can

A TOP SPINS...

but it doesn't do any work

Ragan Rings do a job, and keep on doing it a long, long time—because they have a special hard, brilliant AERO finish. For spinning or twisting, standard sizes or specially designed rings, buy and stick to

Ragan Rings

RAGAN RING COMPANY, the only manufacturer of Textile Rings in the South, 866 Murphy Avenue, P. O. Box 174, Station A, Atlanta, Ga.
Representatives: John Foard, P. O. Box 574, Newton, N. C. • Arthur Harris, H. B. "Booch" Askew, 443 Stonewall St., S. W., Atlanta, Ga.
Henry Hersey, Dean Thomas, 44 Norwood Place, Greenville, S. C.

Duesberg-Bosson WOOLEN CARD and PERALTA MACHINE

(PATENTED)

Shown here: 3-cylinder set, with Peralta Machine. Also available in 2-cylinder and 4-cylinder sets.

All foreign matter entangled in the web as it passes from the doffer is pulverized by the two Peralta Rolls, thereby eliminating this foreign matter from the stock.

BUILT in two sizes, 78¾" and 72¾", this well-known woolen carding machine offers substantially greater production and noticeably improved quality because of inherent design features and operating advantages.

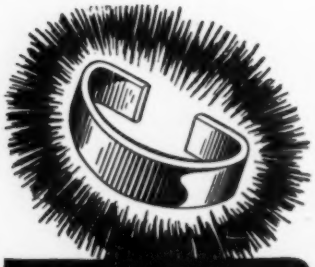
A new 2-cylinder carpet card now in operation in the Duesberg-Bosson Woolen Spinning Co., Jefferson, Mass., is causing great interest.

CATALOG AVAILABLE ON REQUEST

Duesberg-Bosson of America, Inc.

Manufacturers of Woolen Machinery, Developed from a Background of Over 115 Years

FITCHBURG • MASSACHUSETTS



DARY
Ring Travelers

YOURS
for the Asking!

For over 50 years, we've concentrated on producing Dary Travelers—each designed to do a specific job. And we've kept abreast of changing demands in spinning and twisting.

As a result of all this specialized on-the-job training, we've acquired priceless experience. It's yours for the asking—without obligation.

Get to know your
Friendly DARY Representative

catch the hook-up bar if the welt hasn't turned yet.

Start the machine with power. It will cut itself out and reset itself to begin another hook-up. The machine should stop off with sinkers slurred from right to left, lacking about 3¼ to 4 in. from going all the way across. If it doesn't, reset from the start.

Tricot-Dyeing Method

(Continued from page 113)

tracted and dried at 220° F. After each test batch was dyed, samples were taken from each and tested for strength, for courses and wales, shrinkage, and yield.

In order that there will be no confusion of terminology, the term "quality" is used to designate the number of inches in one rack (480 courses) measured on the knitting machine and applies to the cloth only in the knitting operation. The shrinkage figures mean area shrinkage, and the yield is based upon the yards of material for a pound of cloth taken at the time of measurement. For finding yield, laboratory methods were employed by cutting 2 x 2-in. specimens from the relaxed fabric and weighing each in grams to four decimals. After taking an average, the yield was computed by use of the following formula.

$$\text{Yield in sq. yd. per lb.} = \frac{1.4}{\text{wt. in grams}}$$

The constant 1.4 is a conversion factor for a 2 x 2 in. (4-sq. in.) specimen only.

Strength tests were made on the Mullen Tester. The figures obtained are shown in the accompanying table.

Why the Differences?

It is obvious and striking that the strength of the materials dyed continuously is better than those dyed in the rope form; more than 10% better. The shrinkage is also better and the yield is greater. In order to explain this anomaly, it should be pointed out that acetate, being a thermoplastic fiber, will change its shape under heat and will set by that heat. Only higher temperatures will change the setting previously given. Therefore, when fabrics are dyed in the rope form, they are set in a slack condition. The tension exerted by the dyeing reel during the dyeing cycle pulls the goods narrow, and in the relaxed condition in the bottom of the beck the stitch formation tends to become somewhat rounder.

Temperature of the cycle sets the fabric so that finally, depending on the size of the batch that governs the tension exerted, the temperature of dyeing, and the length of time of dyeing, the material is narrowed in width and somewhat shorter in length than desired. When these fabrics are dried to the desired width and length, they are stretched and will shrink to previous dimensions on washing. Thus

55/14 Dull Acetate

Construction	Continuous Dyeing			Dyed in Rope Form		
	Shrink. Area	(Mullen) Strength	Yield	Shrink. Area	Strength	Yield
Control 8 1/8-in. quality	−2.7	44.8	5.21	−7.5	38.9	5.00
63 1/3 to 50 2/3 runners	−5.3			−8.8		
Total runners - 114	−3.6			−6.1		
Ratio 5 : 4						
8 1/2-in. unbalanced cons.	−2.8	40.2	5.14	−8.1	35.8	5.04
66 1/2 to 47 1/2 runners	−7.8			−9.4		
Total runners - 114	−4.2			−6.6		
Ratio 5 : 4						
8 5/8-in. quality	−8.6	42.4	5.40	−9.7	39.2	4.96
63 3/4 to 51 runners	−10.3			−8.9		
Total runners - 114 3/4	−6.9			−11.1		
Ratio 5 : 4						
9 1/2-in. quality	−5.8	39.6	5.43	−7.2	37.4	5.23
67 1/2 to 54 runners	−4.2			−9.2		
Total runners - 122 1/2	−5.3			−7.2		
Ratio 5 : 4						
9 1/2-in. quality	−3.6	37.9	5.31	−5.5	37.1	5.22
69 1/2 to 52 runners	−3.1			−7.8		
Total runners - 121 1/2	−2.5			−7.5		
Ratio 4 : 3						
10 1/4-in. quality	−8.6	36.8	5.6	−12.5	34.6	5.29
69 to 51 1/2 runners	−5.8			−1.22		
Total runners - 120 3/4	−6.9			−10.8		
Ratio 4 : 3						

A Cloth Finisher Asks...

"What is its overfeeding range?
How fast will it operate?
Will it handle all types of fabrics? all weights? all finishes?
Is it equally effective on all colors? — all shades?
Is it completely adjustable?
Will it attach to my tenter frame?
Can I transfer it easily from frame to frame?
Does it operate on a new principle?"

Here are the Facts —

The M&W Positive Overfeed with Selvage Guider regulates overfeeding positively and uniformly from —5% to +30% for all fabrics — any weight or finish — at speeds up to 100 yds. per minute. A simple turn of the wheel changes amount of overfeeding.

Pinning of each selvage on the tenter chain is adjustable, can be held within 1/16" tolerance. A photo-electric cell engages selvage — *instantaneously* corrects sidewise variations, is adjustable to react with equal efficiency to all shades and weights of fabric.

This all-ways adjustable unit attaches to practically all existing tenter frames (when equipped with M&W pin type tenter chains), is easily transferred from one frame to another.

On an important new principle, guider arm brings cloth to meet the rails instead of rails to meet the cloth — gives you greatly increased speed and accuracy by moving ounces of aluminum instead of hundreds of pounds of cast iron.

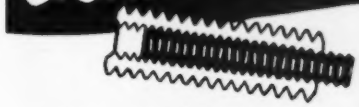
Send for bulletin — free on request.

This device is manufactured exclusively in the U.S.A. under license from John Dalglish & Sons Limited of Thornliebank, Glasgow. Have us estimate the advantages of installation for *your* plant. Get our prompt cost-cutting counsel without obligation.

M & W

MARSHALL and WILLIAMS CORPORATION
PROVIDENCE, R. I. • GREENVILLE, S. C. • NEW YORK, N. Y.

New Huffman Holder Licks Picker Problems!



U. S. PAT. NO. 2,569,994

This shows how snugly the new Huffman interlocking metal holder bonds picker and picker stick. A simple turn of the socket wrench gives any desired adjustment. Cannot move or slip after adjustment.

At last, an adjustable metal picker holder that holds pickers parallel with a bull-dog grip. Easily adjustable with socket wrench to any fraction of an inch. Interlocks picker and picker stick to greatly prolong life of both parts. Can be used over and over with our prepared sticks. Order today from . . .

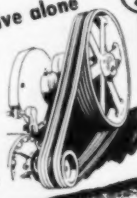
THE HARDWOOD MFG. CO.
P. O. Box 929 Greenville, S. C.

Actual unretouched photos at right show damage caused to picker sticks and pickers by the old method of attaching and adjusting with common wood screws.

What do you do when your v-belts get loose or break?

1 Leave the drive alone

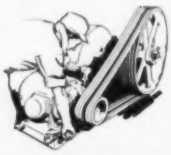
You get more slippage
- ...wasted power
- ...excessive belt wear
- ...uneven sheave wear
- ...less production



2 Slide the motor back

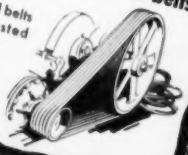
Tight belts get too tight

Life of belts and bearings is reduced

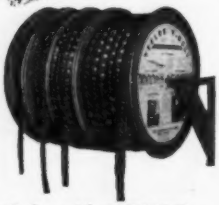


3 Install a new set of belts

Discarded belts mean wasted money



4 Use VEELOS...



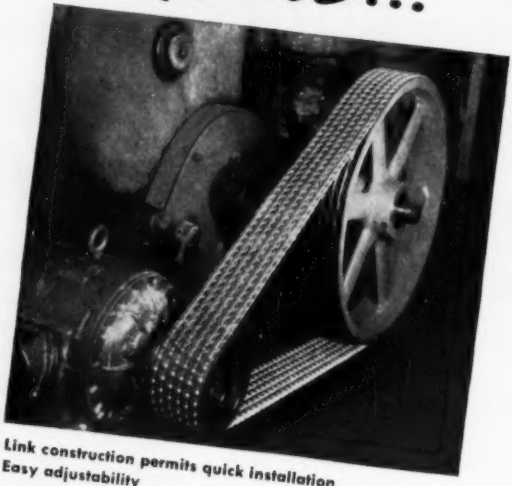
Only with VEELOS...

the adjustable v-belt—can you get *all* these operating advantages. And *only* with Veelos can you eliminate costly v-belt inventory because just four reels of Veelos in the O, A, B and C widths can replace up to 316 different sizes of endless v-belts.

VEELOS DATA BOOK...

The plain facts on construction, installation and use of Veelos are included in this illustrated Data Book —write for your copy.

MANHEIM MANUFACTURING & BELTING COMPANY
611 Manbel St., Manheim, Pa.



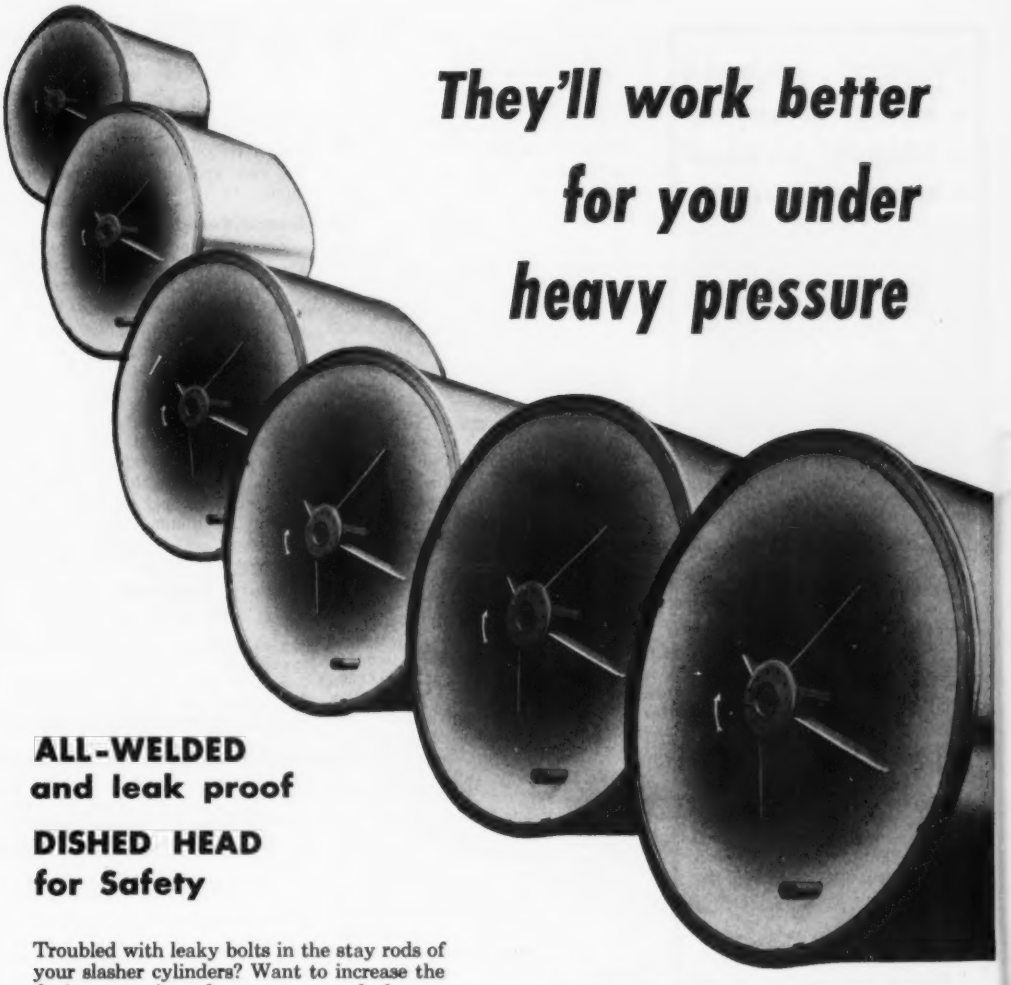
Link construction permits quick installation
Easy adjustability
...provides controlled tension on each belt
...eliminates loafers
Keeps your machines running for *profitable* production

VEELOS
THE LINK
V-BELT

ADJUSTABLE TO ANY LENGTH • ADAPTABLE TO ANY DRIVE

Made in all widths in three types: regular, oil-proof, static conducting. Also double V in O, A and B. Packaged on reels in 100-foot lengths. Sales engineers in principal cities; over 350 distributors throughout the country. VEELOS is known as VEELINK outside the United States.

They'll work better for you under heavy pressure



ALL-WELDED and leak proof DISHED HEAD for Safety

Troubled with leaky bolts in the stay rods of your slasher cylinders? Want to increase the drying capacity of your two—and three—cylinder slashers?

Then replace your old style cylinders with new, dished head, welded steel cylinders. The all-welded construction of WPF&M new-type cylinders does away with bolts in the stay rings and stay rods through the heads. It eliminates over 200 possible leaks in the old-style seven foot cylinder and more than 150 possible leaks in the five foot cylinder.

Drying capacity is increased because these new cylinders allow steam pressure to be stepped up to 22 PSI instead of the old 12 PSI.

And you'll benefit from these advantages in safety with these new all-welded cylinders. Available in five foot and seven foot diameter, stainless steel or copper cover.

Let us give you an estimate to replace your present equipment.

WPF&M WARP PREPARATION MACHINERY

STANDARD 2 AND 3 CYLINDER SLASHERS
CYL-AIR SLASHERS
MULTI-CAM SLASHERS
WPF&M HI-SPEED 4 CYLINDER SLASHERS
CALLAWAY SAMPLE SLASHER
AIR-DRI SLASHERS

SLASHER MODERNIZATION EQUIPMENT

HI-SPEED HEAD ENDS WITH STRETCH CONTROL
STANDARD WPF&M HEAD ENDS
MULTI-MOTOR DRIVES AND CONTROLS
TEMPERATURE, SPEED AND TENSION CONTROL DEVICES
HI-SPEED SIZE BOXES
MODEL 50 SIZE BOXES
STANDARD SIZE BOXES
SIZE KETTLES AND EQUIPMENT

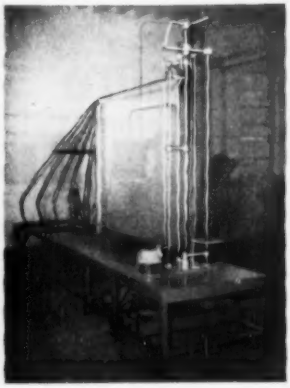
WPF&M

WEST POINT FOUNDRY & MACHINE CO.
WEST POINT, GEORGIA

For more information, write direct or use Reader Service post card.

Now... **You can**

- **DOUBLE, ROLL AND**
- **MEASURE *the finest***
- **NYLONS *and tricots.***



With the

PRECISION

Fine Fabric

DOUBLER & ROLLER

Here is a machine that will reduce your operating and production costs, and increase your output. It has proven its efficiency and economy in actual mill operation.

Will double and roll goods of any size.

ALSO AVAILABLE

1. **Stainless steel dry cans and rolls (any size).**
2. **Stainless steel dyebecks and accessories, reels, pony reels, rake beams, etc.**
3. **Stainless steel trucks.**
4. **Used steel or copper cans converted to stainless steel.**
5. **Custom made machinery and equipment.**

Malow

SHEET METAL AND MACHINE WORKS

113-123 FULTON PL., PATERSON 1, N. J.

Phones: LAmbert 5-2776-2777

Textile Machinery Designers and Stainless Steel Fabricators

a lower yield and a higher shrinkage result.

If the material is dyed in a continuous manner at open width and under controlled conditions, better results are obtained. Although there are six different constructions in this test, each one has better strength, better shrinkage, and better yield when dyed continuously than when dyed in the rope form. These results prove the first premise that to some degree the strength of an acetate tricot fabric is dependent upon dyeing conditions.

The second premise that construction affects fabric strength is borne out by examining chart on page 288. It will be noticed that in the column under "Continuous Dyeing," No. 1 has a strength of 44.8 lb. while No. 2 has a strength of 40.2. The loss of strength is also noticed in the column under "Rope Dyeing," while the yield is relatively the same. In the continuous method, No. 1 which gives the highest strength also gives a somewhat higher yield. It will be noticed also in the four commercial constructions that the strengths vary between 42.4 and 36.8 or approximately 15%, while the yield varies between 5.4 and 5.6 or only 5% better. As further proof, the same trend is noticed in the commercial dyeing procedure only lower in the scale, the strength varies between 39.2 and 34.6, while the yield varies only from 4.96 to 5.29.

When it is realized that both sets of fabrics were each dyed by a widely different method and that each fabric in a set was dyed under identical conditions and that the yield and shrinkage bear the same relationship in all cases, the only difference between these fabrics is construction and it is, therefore, reasonable to assume that the construction of a fabric has a bearing on its strength, shrinkage, and yield.

Argyle Socks

(*Continued from page 110*)

Machine "Gimmicks" Are Few

These argyle machines are run according to the manufacturer's recommendations—no fancy attachments or special settings by Drexel.

A couple of Drexel's techniques are worth noting, however. A. B. Eaker, head fixer, says "You've got to watch the lap-over on these machines. As soon as the cams start to wear, we replace them." By replacing cams every week or so, Drexel prevents the colors in the pattern from lapping over into one another.

White stripes on the pattern kick wheel help the knitters and the fixer to tell which machines are stopped. It used to be impossible to look down the alley and pick out stopped machines.

Several Patterns Are Made

Several geometric argyle patterns are being made on these machines at Drexel. The mill uses 10s combed yarn exclusively for argyles. One end is used in the top, and two ends are used in the body, heel, and toe. Vat dyes and naphthols are used to insure washfastness.

Production Is High

For two 8-hr. shifts and one 7-hr. shift, production averages 350 doz. per day. This figures to about 2¼ doz. per 8 hr. per machine. And seconds are running at a low 12% finished.

Hosiery Conveyor

(*Continued from page 118*)

pair in the 1-doz. lots, and she still has time to ticket two pairs.

5. The next three girls ticket the remaining 10 pairs of each dozen. This girl puts on about three tickets and folds back any that No. 4 missed.

6. Also putting on tickets, this girl usually does about four. The toes of each pair are folded back over the ticketed top so that each girl can tell at a glance which stockings have been ticketed.

7. This girl tickets the rest of the dozen in the lot and makes sure that all the toes have been folded back over the tops.

8. Now the stockings start to be consolidated again. This girl assembles them into ½-doz. lots.

9. Every other half dozen is banded with a paper strip by this girl. The banded stockings will be on top in the box.

10. This girl boxes the stockings, and now they're ready for the cases. If there are 1 doz. stockings in each box, one girl can handle the boxing. If, however, there's only ½ or ¼ doz. in each box, more help is needed here.

Vital statistics on the conveyor

Length:	45 ft.
Over-all width:	28 in.
Belt width:	18 in.
Speed:	45 ft. per min.
Motor:	½ hp.

if it's IRON, if it's STEEL, if it's SCRAP, . . . put it back to work NOW!

ACETATE IS BACKED BY THE BIGGEST ADVERTISING CAMPAIGN IN TEXTILE HISTORY

The new Federal Trade Commission rulings now require Acetate Identification on all acetate merchandise. To help you comply with these new regulations on fiber identification, Celanese is providing free identification material and has launched a program of advertising, promotion, education and sales training—the most extensive campaign of its history!

1. **THE CELANESE THEATRE** "the best dramatic show on the air" is taking the message of Acetate to millions.

2. **Ads like these in LIFE, SATURDAY EVENING POST, WOMAN'S HOME COMPANION and GOOD HOUSEKEEPING every month!**

3. **Ads like these in VOGUE, HARPER'S BAZAAR, GLAMOUR, TODAY'S WOMAN, THE NEW YORKER, TOWN & COUNTRY— all designed for direct store tie-ins!**

4. Magazines and newspapers all over the country are featuring acetate merchandise on their editorial pages, building tremendous demand for acetate in all types of merchandise.

5. For Stores: A comprehensive program of services and materials to help in retail sales training, advertising and promotion, which includes a booklet on Acetate, a Question and Answer booklet, training films, copy aids for the retail advertising department and other helps. More than a thousand stores have ordered these selling aids.

YOU CAN CASH IN ON ALL THIS ACETATE PROMOTION BY USING THESE FREE INFORMATIVE TAGS

- Have you ever had such advertising support before for any fiber or fabric that you use?
- Of course *not*. To tie in, order your *free* Acetate fiber identification tags from the Acetate Identification Bureau, 180 Madison Avenue, N. Y. 16.

Celanese **CORPORATION OF AMERICA, 180 Madison Avenue, New York 16, N. Y.**

Take Your Pick of Performance

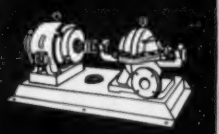
In the complete Fairbanks-Morse Pump Line you can pick the pump that best suits your ideas of performance, efficiency, capacity, head, initial and operating costs. Whatever your choice, you can be sure it will more than live up to your expectations . . . it's Fairbanks-Morse.

For complete information, call your Fairbanks-Morse pump expert or write Fairbanks, Morse & Co., 600 S. Michigan Ave., Chicago 5, Ill.

FAIRBANKS-MORSE,

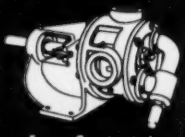
a name worth remembering

PUMPS · DIESEL LOCOMOTIVES AND ENGINES
ELECTRICAL MACHINERY · SCALES · HOME WATER SERVICE EQUIPMENT
RAIL CARS · FARM MACHINERY · MAGNETOS

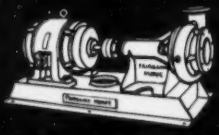


Two-Stage Centrifugal Pumps
Capacities: 100-560 G.P.M.

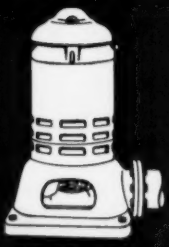
Builtogether
Centrifugal Pumps
Capacities: 5-1000 G.P.M.



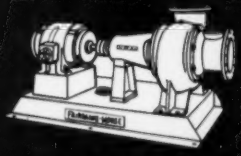
Frame Constructed
Rotary Pumps
Capacities: 1.3-450 G.P.M.



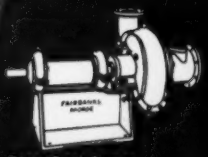
Base-Mounted Centrifugal Pumps
Capacities: 25-3000 G.P.M.



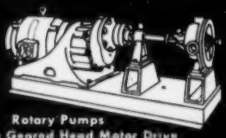
Deep Well Turbine Pumps
Capacities: 15-25,000 G.P.M.



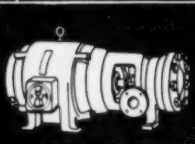
Horizontal Angle Flow Pumps
Capacities up to 100,000 G.P.M.



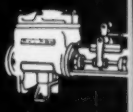
Paper Stock Pumps
Capacities up to
2500 G.P.M.

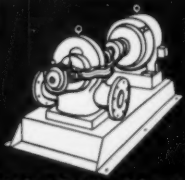


Rotary Pumps
With Geared Head Motor Drive
Capacities: 20-450 G.P.M.

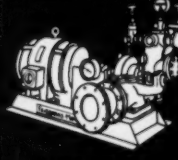


Two-Stage Builtogether Pumps
Capacities: 5-1000 G.P.M.





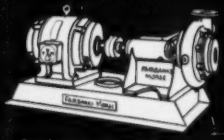
Split-Case Centrifugal Pumps
Capacities: 50-50,000 G.P.M.



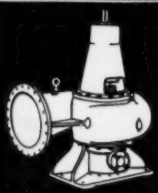
Centrifugal Fire Pumps
Capacities: 500-2000 G.P.M.

Bladeless Impeller
Food Handling Pumps

Vertical
Propeller Pumps
Capacities:
1250-216,000
G.P.M.



Sewage and Trash Pumps
Capacities: 50-20,000 G.P.M.



Vertical Angle Flow Pumps
Capacities up to
100,000 G.P.M.

Through the years . . .

- TEXTILE MACHINERY MODELS CHANGE
- MAKES OF EQUIPMENT ARE DISCONTINUED
- MANUFACTURERS CEASE OPERATIONS

This changing process leaves in the textile industry an accumulation of millions of dollars worth of fine, well made production equipment, capable of years of economical operation . . . capable, however, only so long as it is properly maintained.

To aid the industry in the problem of maintaining this equipment, Southern States Equipment Corporation has, through the years, offered a complete engineering and fabrication service on replacement parts.

This service has been expanded so that at present a great number of the more rapidly wearing parts for preparatory equipment can be shipped from stock.

In addition, Southern States is prepared to fabricate a surprising percentage of the replacement parts required to keep your preparatory equipment operating at top efficiency.

We invite your inquiry and the opportunity to quote.

Southern States Equipment Corp.

HAMPTON GEORGIA

Representatives - Mechanical Division

William A. Knapp, Atlanta, Georgia
Matthews Equipment Co., Providence, R. I.
John C. Walters, Hampton, Georgia
C. H. Kennington, Charlotte, N. C.
Roy Schrimshire, Columbus, Georgia
Textile Parts & Machine Co., Gastonia, N. C.
F. C. Todd, Inc., Gastonia, N. C.

Largest Manufacturer of Cast-Tooth and Cut-Tooth Gears in the South

HERE'S A NEW FIBREEN FOR TEXTILE PACKAGING

For special packaging problems involving textiles, a new non-asphaltic FIBREEN has been perfected and is now available in standard roll widths. This new protective paper, known as SRA FIBREEN, assures stainless packaging protection. It is unusually pliable even at low temperatures and conforms readily to any product contours. Its fibre reenforcing gives it amazing strength.

SRA FIBREEN includes all the advantages for complete protection which have made regular FIBREEN the preferred packaging paper . . .

- Prevents entry of moisture, dirt or dust.
- Reduces damage claims.
- Easy to handle, costs less for application.
- Economical as a packaging material.

FIBREEN is available in roll-widths of 36", 48", 54", 60", 72", 84", 96".

For FREE Samples, mail this coupon:
THE SISALKRAFT CO., Dept. T-4
205 W. Wacker Drive, Chicago 6, Illinois

Please send samples of FIBREEN and SRA FIBREEN, and information on protective packaging.

Your Name.....

Firm Name.....

Address.....

City, Zone, State.....

FIBREEN
WATERPROOF
SISAL-REINFORCED
PROTECTIVE PAPERS

THE SISALKRAFT CO.
205 West Wacker Drive, Chicago 6, Ill.
New York 17, N. Y. San Francisco 5, Calif.

Textile Calendar

Natl. Packaging Exposition, Atlantic City Auditorium, Atlantic City, N. J., April 1 to 4, 1952.

AATT, monthly meeting, Builder's Club New York, April 2, 1952.

The Wool Bureau, seminar, Lowell Textile Institute, Lowell, Mass., April 7 to 9, 1952.

Spartanburg Industrial Exhibition. Memorial Auditorium, Spartanburg, S. C., April 14 to 19, 1952.

Fiber Society, spring meeting, Clemson House, Clemson, S. C., April 16 and 17, 1952.

Cotton Mfrs. Assn. of Georgia, convention, Boca Raton Hotel and Club, Boca Raton, Fla., April 16 to 18, 1952.

AATCC, New York Sect., Swiss Chalet, Rochelle Park, N. J., April 18, 1952.

American Society for Quality Control, Textile Processing Sub-Committee, spring meeting, Georgia Tech, Atlanta, Ga., April 18, 1952.

AATCC, council meeting, New York, April 18, 1952.

AATCC, New York Sect., Swiss Chalet, Rochelle Park, N. J., April 18, 1952.

AATCC, Northern New Eng. Sect., LTI, Lowell, Mass., April 18, 1952.

AATCC, Mid-West Sect., Cincinnati, Ohio, April 19, 1952.

Pennsylvania Textile Executives Assn., Hotel Broadwood, Philadelphia, Pa., April 19, 1952.

Knitting & Allied Crafts Exposition, sponsored by Natl. Knitted Outerwear Assn. and Underwear Institute, Grand Central Palace, New York, April 21 to 25, 1952.

Natl. Knitted Outerwear Assn., annual convention, Waldorf-Astoria Hotel, New York, April 22 and 23, 1952.

Underwear Institute, annual meeting, New York, April 24, 1952.

American Inst. of Electrical Engineers, Textile Sect., spring meeting, Engineers' Club, Philadelphia, Pa., April 24, 1952.

CATCC, annual meeting and textile tests-methods forum and exhibit, Mount Royal Hotel, Montreal, Que., April 25 and 26, 1952.

AATCC, Philadelphia Sect., Abraham Lincoln Hotel, Reading, Pa., April 25, 1952.

AATCC, Piedmont Sect., Clemson House, Clemson, S. C., April 25 and 26, 1952.

Natl. Assn. of Hosiery Mfrs., annual meeting, New York, May, 1952.

Phi Psi Fraternity, annual convention, Clemson House, Clemson, S. C., May 1 to 3, 1952.

AATCC, Hudson-Mohawk Sect., Jack's Restaurant, Albany, N. Y., May 2, 1952.

AATCC, Western New Eng. Sect., Ladies' Night, Cheshire, Conn., May 2, 1952.

AATCC, Southeastern Sect., Columbus, Ga., May 3, 1952.

British Industries Fair, Earl's Court and Olympia, London; and Castle Bromwich, Birmingham, England; May 5 to 16, 1952.

4th International Lighting Exposition and Conference, Cleveland Auditorium, Cleveland, Ohio, May 6 to 9, 1952.

AATT, monthly meeting, Builders Club, New York, May 7, 1952.

ACMI, annual convention, Haddon Hall, Atlantic City, N. J., May 15 to 17, 1952.

Carolina Yarn Assn., annual outing, Carolina Hotel, Pinehurst, N. C., May 15 to 17, 1952.

AATCC, New York Sect., Swiss Chalet, Rochelle Park, N. J., May 16, 1952.

AATCC, Northern New Eng. Sect., Andover Country Club, Andover, Mass., May 16, 1952.

Paris Fair (Foire de Paris), Port de Versailles, Paris, France, May 17 to June 2, 1952.

American Society for Quality Control, annual convention, Onondaga County War Memorial, Syracuse, N. Y., May 22 to 24, 1952.

Textile Institute, annual conference, Assembly Hall, Edinburgh, Scotland, June 2 to 6, 1952.

AATT, monthly meeting, Builders Club, New York, June 4, 1952.

AATCC, Northern New Eng. Sect., annual outing, Merrimac Valley Country Club, June 6, 1952.

AATCC, Southeastern Sect., annual outing, Radium Springs, Ga., June 6 and 7, 1952.

AATCC, Piedmont Sect., Ocean Forest Hotel, Myrtle Beach, S. C., June 6 and 7, 1952.

Summer Management Course, State University of Iowa, Iowa City, Iowa, June 9 to 21, 1952.

STA, annual convention, Ocean Forest Hotel, Myrtle Beach, S. C., June 12 to 14, 1952.

AATCC, council meeting, New York, June 13, 1952.

AATCC, general research committee, meeting, New York, June 13, 1952.

AATCC, Philadelphia Sect., outing, LuLu Temple Country Club, North Hills, Pa., June 13, 1952.

AATCC, Midwest Sect., Lake Lawn Lodge, Delavan, Wisc., June 14, 1952.

AATCC, Western New Eng. Sect., outing, June 20, 1952.

AATCC, New York Sect., outing, June 20, 1952.

AATCC, Hudson-Mohawk Sect., Jack's Restaurant, Albany, N. Y., June 20, 1952.

ASTM, annual meeting, Hotel Statler, New York, June 23 to 27, 1952.

AATT, monthly meeting, Builders Club, New York, Sept. 3, 1952.

7th National Chemical Exposition, Coliseum, Chicago, Ill., Sept. 9 to 13, 1952.

Fiber Society, fall meeting, Princeton, N. J., Sept. 10 and 11, 1952.

AATCC, Piedmont Sect., Hotel Charlotte, Charlotte, N. C., Sept. 12 and 13, 1952.

AATCC, Southeastern Sect., Atlanta, Ga., Sept. 13, 1952.

Third Canadian Textile Seminar, Queen's University, Kingston, Ont., Sept. 18 to 20, 1952.

AATCC, council meeting, New York, Sept. 19, 1952.

AATCC, general research committee meeting, New York, Sept. 19, 1952.

AATT, monthly meeting, Builders Club, New York, Oct. 1, 1952.

AATCC, Western New Eng. Sect., Rapp's Restaurant, Shelton, Conn., Oct. 3, 1952.

17th Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct. 6 to 11, 1952.

Beltwide Cotton Mechanization Conference, San Joaquin Valley, Calif., Oct. 22 to 24, 1952.

AATT, monthly meeting, Builders Club, New York, Nov. 5, 1952.

AATCC, national convention and dyeing and finishing exposition, Hotel Statler, Boston, Mass., Nov. 6 to 8, 1952.

AATCC, council meeting, Boston, Mass., Nov. 6, 1952.

AATCC, general research committee meeting, Boston, Mass., Nov. 6, 1952.

AATCC, Western New Eng. Sect., Rapp's Restaurant, Shelton, Conn., Nov. 14, 1952.

AATT, monthly meeting, Builders Club, New York, Dec. 3, 1952.

AATCC, Northern New Eng. Sect., annual meeting, LTI, Lowell, Mass., Dec. 6, 1952.

AATCC, Western New Eng. Sect., Rapp's Restaurant, Shelton, Conn., Dec. 12, 1952.

1953

Natl. Assn. of Hosiery Mfrs., annual convention and conference, Claridge Hotel, Atlantic City, N. J., April 27 and 28, 1953.

Knitting Arts Exhibition, Atlantic City Auditorium, Atlantic City, N. J., April 27 to May 1, 1953.

AATCC, national convention, Stevens Hotel, Chicago, Ill., Sept. 17 to 19, 1953.

1954

American Textile Machinery Exhibition, sponsored by American Textile Machinery Association, Atlantic City Auditorium, Atlantic City, N. J., April 26 to May 1, 1954.

Know how Milco tricot gets its quality air?

The men at Milco set high standards for themselves, and they know how to meet them. Over 95% of their tricot cloth is first quality —which at Milco means three defects or less for 300 racks.

A big factor behind this kind of production is *complete* air conditioning that gives absolute control of temperature and humidity. At Milco, conditions are held at a constant 80 degrees and 60% relative humidity regardless of outside weather.

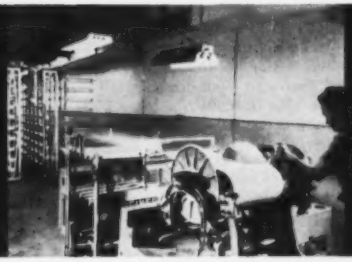
Consequently, the sensitive 28-gauge warp knitting machines stay in proper adjustment, rarely smash or sheer. And the acetate and nylon yarns are always moist and static free.

Which all means that costs are kept down too. Milco is the only integrated tricot manufacturer with products in the popular price field.

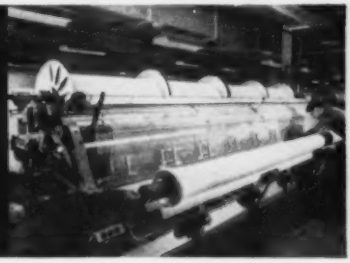
In weaving, knitting, throwing and other operations, quality production and complete air conditioning go hand in hand. It will pay you to let us tell you how your present system can be adapted to complete air conditioning. Write for our textile catalog. Carrier Corporation, Syracuse, N. Y.

Carrier

AIR CONDITIONING
REFRIGERATION
INDUSTRIAL HEATING



A Carrier Air Conditioning System, using well water, makes low denier nylon and acetate yarns easy to handle, reduces number of breaks.

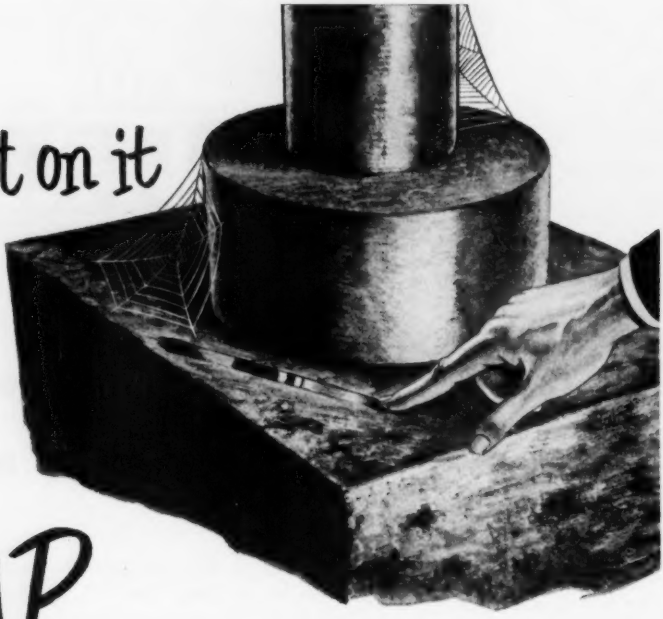


Efficiency in this Carrier Air Conditioned knitting room runs up to 99%. Milco products are sold through leading chain and department stores.

If there's dust on it

it may be

precious scrap!



If it's SCRAP

it's needed to make STEEL!

One half of all the raw materials used in steel production is *scrap*.

Today, the mills aren't getting enough iron and steel scrap to keep up with greatly increased steel production.

AND WHAT IS SCRAP?

Scrap is many things. Here are three:

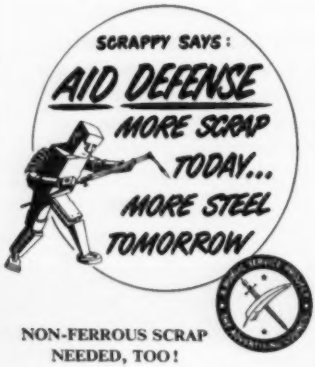
1. the "left-overs" of iron and steel production, fabrication and machining.
2. junked autos and old farm machinery.
3. obsolete iron and steel equipment in factories, such as old machinery, tools, dies, jigs, fixtures, chain, valves, etc.

But—the "left-overs" are not great enough today to fill the unprecedented demands for steel production.

And, with replacements scarce, less junked autos and farm machinery have entered the scrap supply lines.

So—only by digging out all the never-to-be-used odds and ends of broken, worn-out, and obsolete factory equipment . . . can mills and foundries get all the scrap they need.

If they don't get it, steel production rates may be severely hampered . . . and our country's effort to maintain military strength and civilian economy *at the same time*, will be crippled.



NON-FERROUS SCRAP NEEDED, TOO!

It's YOUR Job to Furnish More Scrap

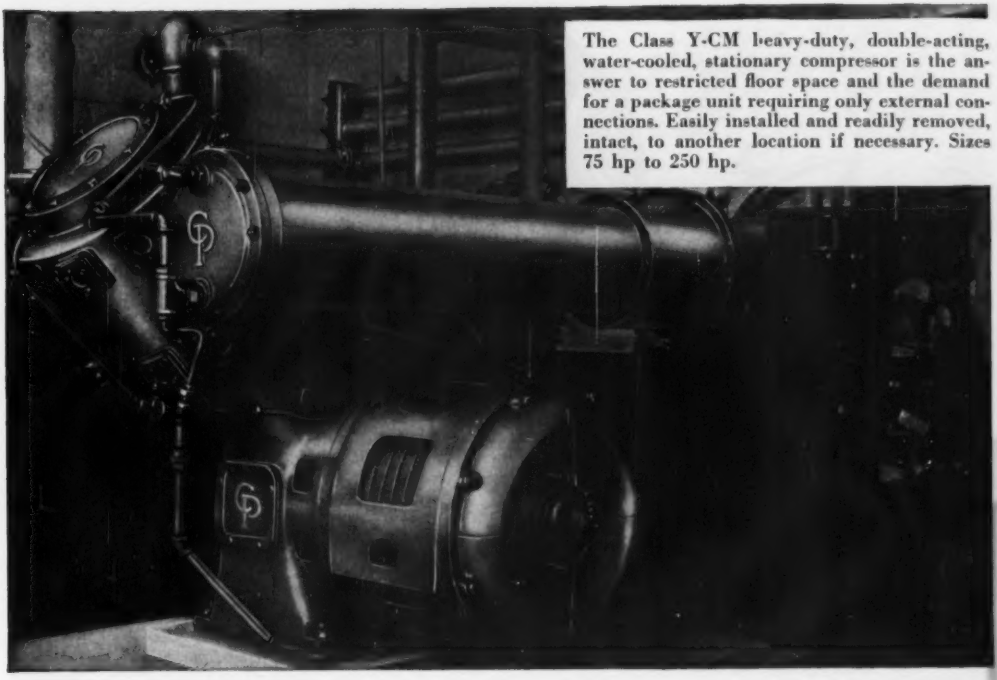
Institute a steel scrap salvage program in your plant. Appoint one top official in your company to take full responsibility. Have him consult with your local Scrap Mobilization Committee and local scrap dealers. The nearest office of the National Production Authority, Department of Commerce, can tell you who your local Scrap Mobilization chairman is.

Do this now. Write for a copy of the booklet, "Top Management: Your Program for Emergency Scrap Recovery", to Advertising Council, 25 W. 45 St., New York 19, N. Y.

This advertisement is a contribution, in the national interest, by

McGRAW-HILL PUBLISHING COMPANY, INC.

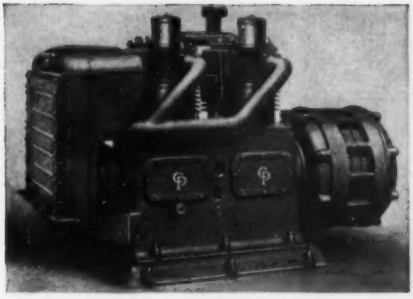
330 WEST 42nd STREET, NEW YORK 18, N. Y.



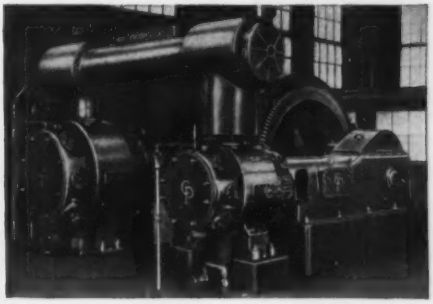
The Class Y-CM heavy-duty, double-acting, water-cooled, stationary compressor is the answer to restricted floor space and the demand for a package unit requiring only external connections. Easily installed and readily removed, intact, to another location if necessary. Sizes 75 hp to 250 hp.

dependable, low maintenance compressors

from 7½ hp to 2000 hp



The small, compact, two-stage Class PM compressor—air-cooled for all-weather operation—may be installed independently of main air system. Also suitable for off-hour operations. Sizes from 25 hp to 100 hp. Available with built-in motor, flexible coupling or V-belt drive.



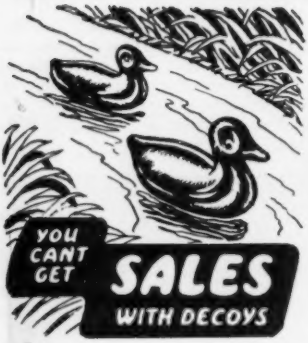
Built in the larger sizes — up to 2000 hp, Class O-CE horizontal duplex motor-driven compressors meet all load demands most economically, and "last forever."

Write for further information on these and other types of CP Stationary Compressors.

CHICAGO PNEUMATIC TOOL COMPANY

General Offices: 8 East 44th Street, New York 17, N. Y.

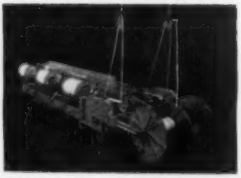
PNEUMATIC TOOLS • AIR COMPRESSORS • ELECTRIC TOOLS • DIESEL ENGINES
ROCK DRILLS • HYDRAULIC TOOLS • VACUUM PUMPS • AVIATION ACCESSORIES



You can't *afford* to attract customers with "decoys." YOUR problem to is *keep* those customers you get . . . to sell them again and again. To produce—and sell—merchandise that reflects the utmost value, requires correctly engineered plant equipment . . . machinery designed especially to your specific needs for economical production. This is the kind of machinery that Haskell-Dawes designs and builds for varied twisting processes.

To cut the cost of producing rope, thread, cordage and wire, H-D engineering experts constantly work to improve—and still further improve—the efficiency of all Haskell-Dawes machines.

YOU CAN PROFIT BY WRITING NOW
FOR NEW TECHNICAL BULLETINS



We have in preparation an entirely new series of technical bulletins. They describe and illustrate the various machines we manufacture, their application, and important features. These bulletins may point the way to product-improvement and manufacturing economies. Whether or not you are immediately ready to install new equipment, these bulletins are worthy of serious study. Tell us what you are making and an appropriate bulletin will be sent to you as soon as it is available. Write us today.

HASKELL-DAWES
MACHINE CO., INC.
2231 E. Ontario St., Philadelphia 34, Pa.

News OF THE MONTH

X-51 Acrylic Fiber Unveiled. X-51, American Cyanamid Co.'s entry in the acrylic-fiber field, was presented to textile men for the first time publicly at the March 5 meeting of the American Assn. of Textile Technologists in New York.

The outstanding qualities of the new acrylic fiber are its ease of dyeing by ordinary dyehouse techniques with acetate, acid (cuprous-ion method), direct (cuprous-ion method), basic, vat, and soluble vat dyes; and its greater bulkiness than other acrylics that promises more warmth in lighter-weight fabrics, the company says. Shrinkage is low. Both staple and filament can be processed on standard equipment with a minimum of changes from standard procedure. When vat dyed, the fiber shows excellent fastness to washing, perspiration, and crocking; and to light if depth of shade is taken into account.

At the moment, the new fiber is being produced only in limited quantity in staple and filament form, with tow to be available later this year.

Loopless-Toe Patent Contested. One hundred full-fashioned hosiery manufacturers have filed a suit against Julius Kayser & Co., Standard Mills, Inc., and Charles A. Kaufman that seeks to invalidate by decree a patent (No. 2,304,053) on loopless-toe manufacturing granted to Mr. Kaufman about 10 years ago.

The Kayser company, authorized licensing agent under the patent, had given notice to almost all full-fashioned hosiery manufacturers in the country that their mills were infringing on the patent and that suits would be brought against them. An infringement suit was brought against Hoover Hosiery Co., Inc., last January.

The plaintiff mills claim the loopless-toe patent is invalid because of lack of invention in the patent and because the claims therein are incomplete, misleading, and inoperative; and were partially covered by earlier patents.

Wool-Top "Dumping" Controversy. Argentine wool-top manufacturers have been selling tops in the United States at less than the cost of the wool in semi-manufactured products, Kenneth W. Marriner and Arthur Wellman, Jr., of Boston, Mass., disclosed at a conference on wool held recently in Washington. The low landed price is possible, they said, by a special peso exchange rate granted by Argentina that is 50% in excess of the normal rate, and above that allowed to Argentine wool growers. Wool from Argentina was offered to Mr. Marriner on a clean basis at $1.42 and in semi-manufactured top form for $1.41. The cost of making top in the U. S. is about an additional 48¢ per pound.

The imposition of countervailing duties on wool tops from Argentina and Uruguay was foreseen, as well as U. S. support prices for domestic wool by means of loans up to 90% of parity.

Because of a floor price, Argentina has about 600,000,000 lb. of wool unsold from last year and the present clip. This bottleneck is said to account for the idleness of an increasing number of top-making plants in the U. S.

ORGANIZING COMMITTEE of a new chapter of the Society for the Advancement of Management is headed up by Prentice M. Thomas, editor-in-chief, TEXTILE WORLD (center). Howard S. Stevenson (left) of Bruce Payne Associates spearheaded the movement in Greenville. C. A. Slocum, (right) came down from the New York headquarters of SAM to address the initial meeting of 30 men, mostly textile executives.

Satisfaction guaranteed!

Sylvania Fluorescent Tubes now guaranteed to give results second to none . . . money back if not satisfied!

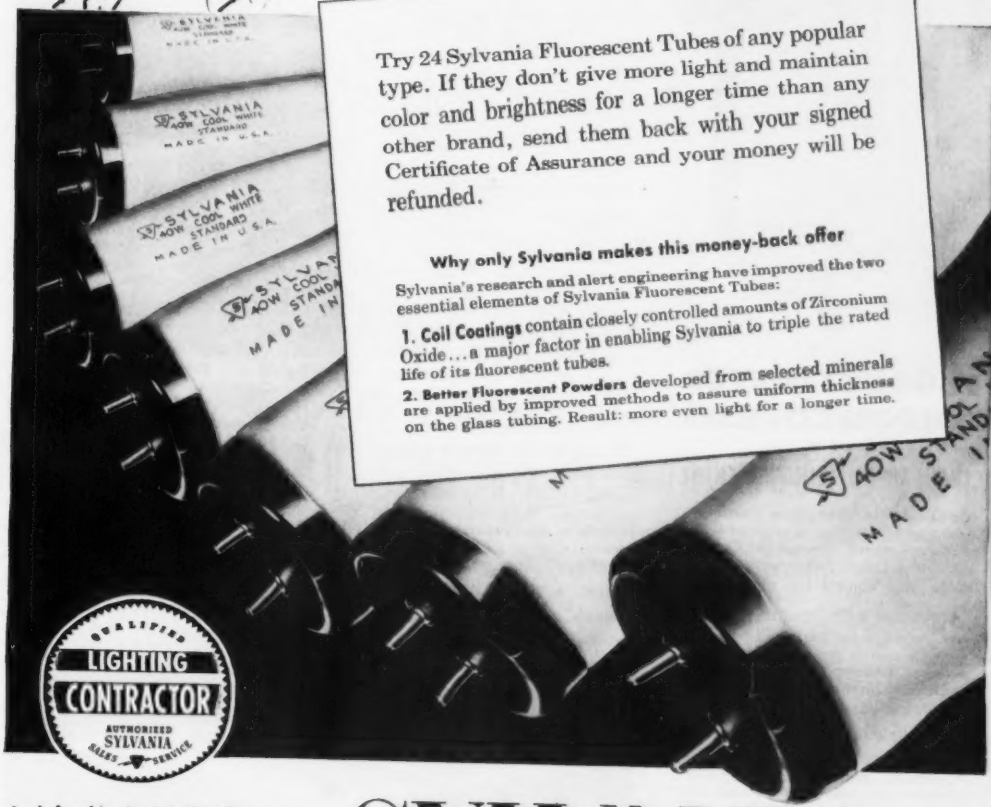
Try 24 Sylvania Fluorescent Tubes of any popular type. If they don't give more light and maintain color and brightness for a longer time than any other brand, send them back with your signed Certificate of Assurance and your money will be refunded.

Why only Sylvania makes this money-back offer

Sylvania's research and alert engineering have improved the two essential elements of Sylvania Fluorescent Tubes:

1. Coil Coatings contain closely controlled amounts of Zirconium Oxide . . . a major factor in enabling Sylvania to triple the rated life of its fluorescent tubes.

2. Better Fluorescent Powders developed from selected minerals are applied by improved methods to assure uniform thickness on the glass tubing. Result: more even light for a longer time.



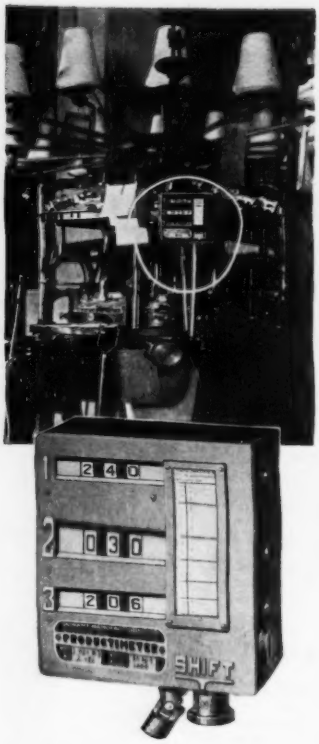
Look for this sign! It identifies a Qualified Lighting Contractor ready to offer you expert service and Sylvania quality tubes and fixtures.

SYLVANIA

Sylvania Electric Products Inc., 1740 Broadway, New York 19, N. Y.

FLUORESCENT TUBES, FIXTURES, SIGN TUBING, WIRING DEVICES; LIGHT BULBS; RADIO TUBES; TELEVISION PICTURE TUBES; ELECTRONIC PRODUCTS; ELECTRONIC TEST EQUIPMENT; PHOTOLAMPS; TELEVISION SETS

For more information, write direct or use Reader Service post card.



PRODUCTIMETER

COUNTS COURSES
on a
CIRCULAR KNITTING MACHINE

Dependable, accurate measurement of production is assured with Productimeter three-shift Course Counters. Losses due to weight variance are completely eliminated. Constructed with "shutter-mechanism" to make tampering impossible — only actual production and operators' accomplishments can be registered on the counter. Productimeters increase operator efficiency and help maintain maximum production.

Precision engineered and ruggedly built for long, continuous usage . . . there is a Productimeter for every application of counting in the textile industry.

Send for Catalog No. 50

DURANT MANUFACTURING CO.
1931 N. Buffum St. Milwaukee 1, Wis.
131 Orange St. Providence 3, R.I.
Representatives in Principal Cities

PRODUCTIMETERS
SINCE 1879 *Count Everything*

NEWS *of the Month*

(Continued)

Improving Wool Felting Resistance. The density with which wool is packed in a given area in a knitted fabric construction has been found to be a major contributor to resistance of the wool to felting, a report on the effects of construction on the laundering shrinkage of wool fabrics in Textile Research Journal states. The improved launderability is obtained by an increase in the number of loops per inch or in the yarn size. Higher-twist yarns also help.

With woven wool fabrics, the following conclusions were obtained from the tests: (1) more ends per inch, heavier yarns, and higher-twist yarns give added shrinkage resistance, (2) plied yarns do not seem to help prevent shrinkage, (3) the use of yarns with the same direction of twist in both warp and filling helps, and (4) plain-weave fabric resists shrinkage better than twill or other fancy weave.

Dynel Expansion Confirmed. A 20,000,000-lb.-per-year dynel-staple plant costing $30,000,000 will be built at Spray, N. C., as soon as a certificate of necessity for the construction can be obtained from Washington, Carbide & Carbon Co. has confirmed.

The new plant would increase dynel production to 26,000,000 lb. a year. To date about half of the available dynel has been going into apparel uses and half into domestic, industrial, and military uses.

The following percentages are going into the following end uses: 20% into woven apparel blends, 10% into men's hosiery, 10% into industrial pile fabrics like paint rollers, and 5% each into underwear, uniforms, comforters, draperies, filter fabrics, and novelties. Foreign sales and new-product development are taking the balance.

Hosiery-Workers' Wage Reduction. Union workers in 29 full-fashioned hosiery mills in February accepted wage reductions ranging up to 25% in some departments in an agreement reached between Full-Fashioned Hosiery Mfrs. Assn. and American Federation of Hosiery Workers, AFL. The agreement continues until Aug. 31, 1953.

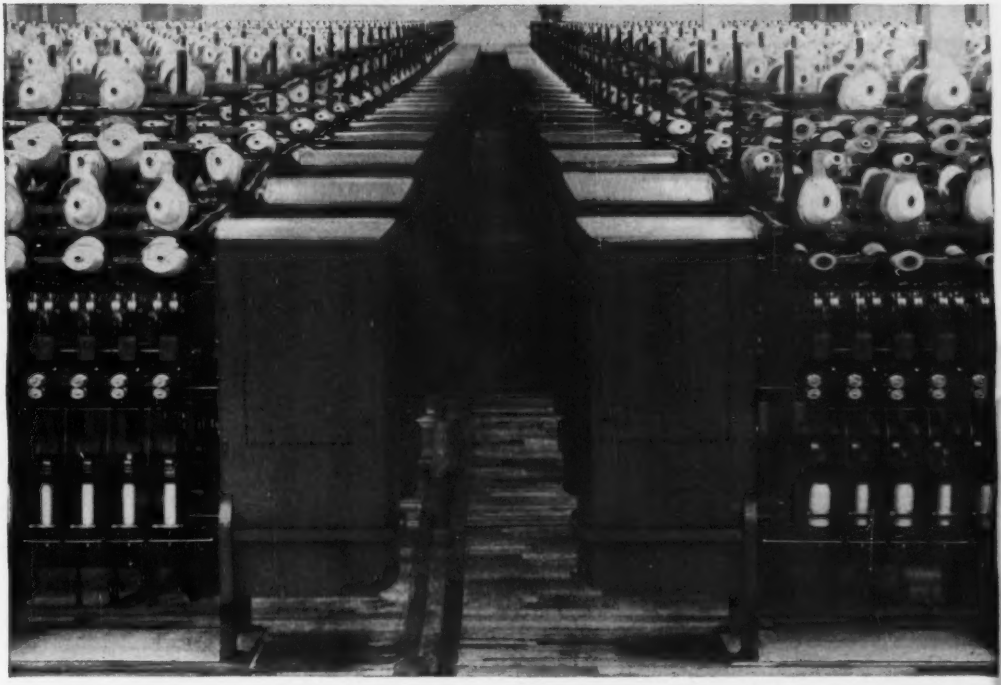
According to the report of the wage tribunal members (Samuel F. Rubin, William M. Leader, and Ralph Seward), it is permitted for a mill to have two-machine operation with a male helper on machines with 24 sections or fewer. Third-shift operations are not permitted on such double jobs. Also double jobs may not be used in such a way as to displace other knitters in the mill.

The tribunal decision affects about 20,000 AFHW members. The union feels that banning the third shift would be a better answer to the manufacturers' problem, while FFHMA feels manufacturers should scrap their older machinery and profit from the cost advantage offered by the more efficient new longer-section machines.

Felt Manufacturers Optimistic. Optimism for the remainder of 1952 was expressed at the recent meeting of the Felt Association held in New York. Ample supplies were seen for military and civilian needs. A buyers' market was seen as prevailing, yet 1952 business volume is expected to be as good as last year, with lower prices prevailing. No possibility of a shortage of raw materials can be seen in the immediate future since wool is in long supply and felt makers' needs are low in comparison to needs of apparel manufacturers and other users.

EDWARDS PLANT of Saco-Lowell Shops in Saco, Me., located about two miles from the older company plants on the Saco River in Biddeford, contains 300,000 sq. ft. of unencumbered floor space on a 200-acre plot. A 40x60-ft. column spacing and uniform overhead clearance of 18 ft. from the enclosed railroad and truck docks at one end of the building to shipping docks at the other are outstanding features of the building. Designed and built by the Austin Co., Cleveland, Ohio, the new plant is being given over for the present to defense-program contracts.

We are PROUD of these...



Fletcher MASTER-DUPLEX DOUBLER-TWISTERS at ROBBINS MILLS' most modern plant

Yes, we take pride in the Fletcher Master-Duplex machines shown here because they are the most advanced and versatile doubler-twisters ever manufactured. These are but a few of hundreds of Fletcher Master-Duplex machines being installed in *Robbins Mills Spun Rayon* plant at Raeford, N. C.

Our greatest pride, however, is in the continued confidence of Robbins Mills, who have been using Fletcher throwing machines since 1931, and at present are operating hundreds of Fletcher twisters and doubler-twisters in their various plants.

Naturally when Robbins Mills went into the production of spun rayon, they desired to maintain the same economies and efficiencies they had obtained with Fletcher equipment in their silk, rayon and nylon operations. They asked us to build a machine that would incorporate the advantages of filament yarn equipment. To meet this we built the machine shown above . . . large package doubler-twisters with automatic stop-motion for both single and plyed ends, eliminating roller laps and wasted yarn. Individual doffing and minimum floor space are other outstanding features of this new machine . . . the most desirable doubler-twister available.

Use the Fletcher Master-Duplex for Filament Yarn . . . Spun Yarn . . . Synthetic or Natural Fibers! We'll gladly demonstrate its many superiorities. Write us today.

FLETCHER WORKS

223 GLENWOOD AVE. PHILADELPHIA 40, PA. ESTABLISHED 1850

Southern Representative . . . F. W. WARRINGTON, Johnston Bldg., Charlotte, N. C.

A Shuttle in Need Is a Friend Indeed

Keep ahead of your shuttle needs with a continual check on your shuttle inventory. Time is needed for Watson-Williams to give you the dependable shuttle that meets YOUR exact requirements. Therefore, order well ahead of time so that we can maintain your shuttle deliveries.

Watson-Williams will continue to supply you with quality shuttles as quickly as possible — shuttles with the latest improvements — to increase your production and cut down your weaving problems.

WATSON WILLIAMS Mfg. Co.

MILLBURY, MASSACHUSETTS
SOUTHERN REPRESENTATIVES:
Watson & Desmond, Box 1954, Charlotte, N. C.
Arthur J. Bahan, 810 South Carolina National Bank Bldg., Greenville, S. C.
John Wyatt, Jefferson Bldg., Greensboro, N. C.
NORTHERN REPRESENTATIVE:
Guy C. Burbank, 32 Beaconsfield Rd., Worcester 2, Mass.
WESTERN REPRESENTATIVE:
Francis B. Wells, 805 Linwood Avenue, La Porte, Indiana

NEWS *of the Month*

(Continued)

Cotton-Mill Purchases Analyzed. 1952 potential purchases by U. S. cotton mills in dollars-and-cents figures have been made known by Textile Information Service. They have been worked out on an industry-wide basis from studies of actual purchase-cost figures culled from the books of three representative Southern mills.

Cotton-textile manufacturers (in employment representing about 40% of the textile mill-products industry) buy, among hundreds of products, about $31,000,000 worth of packing materials, $16,000,000 worth of paint, $20,000,000 worth of paper products, $25,000,000 worth of starch, $14,000,000 worth of electrical supplies, $7,000,000 in hardware, and $15,000,000 worth of burlap. And as a customer of the cotton farmer, mills will buy and use about $2,000,000,000 worth of American cotton this year.

Concern was expressed for these other sectors of the nation's economy, as well as for the mills, if the slowdown in orders for textile products continues from wholesalers, retailers, and consumers.

NEW LOOM ATTACHMENT that allows enough picks to be inserted in a cotton fabric to make it waterproof was just one of the items of interest noted by Miss Patricia Ann Mullarkey, 1952 Maid of Cotton, on her recent trip through the Southern Regional Research Laboratory at New Orleans, La.

1951 Hosiery Shipments. Shipments of full-fashioned hosiery in 1951 were 49,573,408 doz. pr. as compared to 52,377,383 doz. pr. in 1950, the only year in which they were higher. The 1950 figure is seen as being hard to beat because of the scare buying that followed the outbreak of the war in Korea.

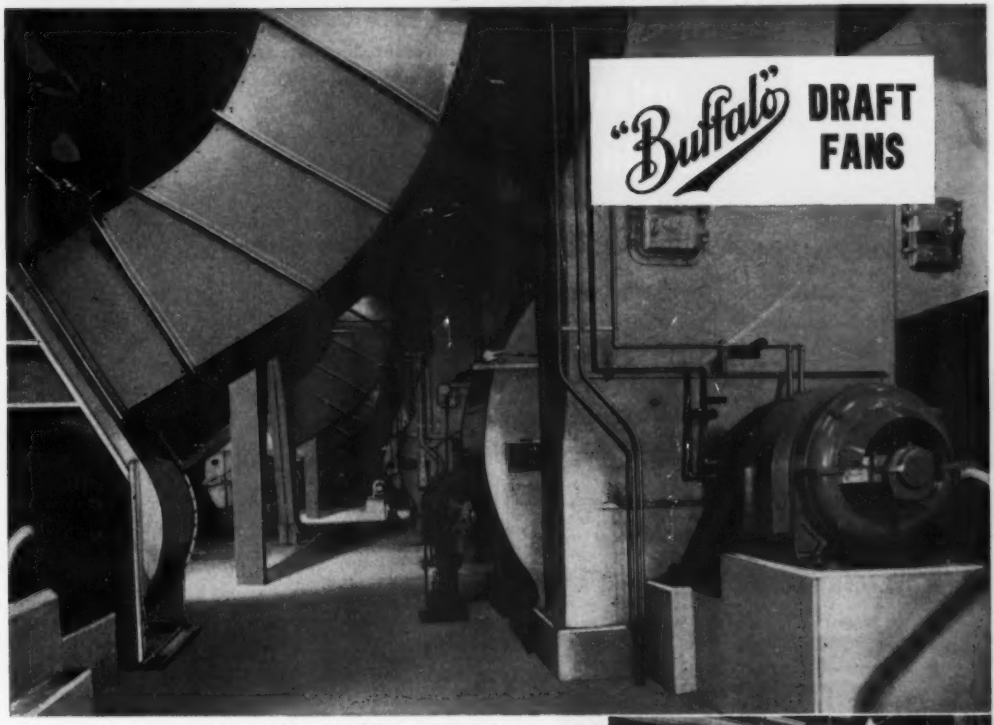
For all types of hosiery shipments, the figure for the year 1951 was 151,619,625 doz. pr., as against 160,676,817 doz. pr. in 1950, making 1951 a good over-all year that was exceeded only by 1941, 1943, 1946, and 1950. Almost 9,800,000 children's and infants' socks (except anklets) were shipped for a new record in that category in 1951. Women's seamless nylon hosiery shipments also set a new record in 1951 when a total of 4,588,395 doz. pr. were shipped from mills.

Heating - Equipment Certification Needed. Certification, on or before June 30, 1952, of compliance with certain minimum radiation requirements for all high-frequency equipment installed or manufactured prior to July 1, 1947, is required by Part 18 of FCC rules and regulations, National Electrical Mfrs. Assn. has brought to the attention of the textile industry. NEMA suggest that users of older types of equipment get in touch with the manufacturer of the equipment, or a consulting engineer, for guidance in complying with the rules before the mid-year deadline.

French Wool Productivity Report. The recently released productivity report of the 20-member team of French carded and combed wool spinners that last year toured the U. S. under ECA sponsorship contains both praise and reservations for the American mills visited. The basic factors contributing to high U. S. productivity were seen as (1) use of modern equipment, (2) advanced labor-management relations, (3) doing what works and theorizing from there, (4) use of best raw materials in the world, (5) continuous spinning, (6) large packages, (7) quality and production controls, (8) a will to work, and (9) highly cooperative attitude of American textile workers and unions.

The main points the team regretted were (1) that they had not visited some of the ultra-modern mills in the South, (2) that the mills they visited were largely working on standardized government orders rather than on a variety of civilian goods, and (3) that good-housekeeping and accident-prevention were not further along. The Frenchmen still believe also that the "skill" of the average American textile worker is lower than that of his French counterpart.

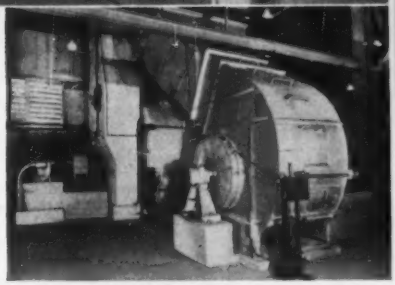
AIR POWER TO MEET LOAD DEMANDS *Quickly and Continuously*



For the important and punishing draft job, you want fans that will meet your varying load demands dependably. You also want fans that are built for the long run—fans that aren't continually requiring attention and repairs. And that means "Buffalo" Fans. These are the draft fans that have set endurance records in every type of power plant—many 25-year-old "Buffalo" Draft Fans still on the job have earned their keep many times over. That's because every part of these fans is built oversize—built specifically to stand draft service.

Above is a recent "Buffalo" installation in a municipal public utilities station. Three "Buffalo" Induced Draft Fans are on the right of the aisle, while three Forced Draft Fans are at left. *Consulting Engineers for this project were GILBERT ASSOCIATES of Reading, Pa.*

For helpful information on dependable draft service, write today for BULLETIN 3750.



More fans in the same station. In the foreground is a "Buffalo" F.D. Fan with variable inlet vanes for regulating combustion. In the rear is an insulated "Buffalo" I. D. Fan.

FIRST FOR FANS

BUFFALO FORGE COMPANY

184 MORTIMER ST. BUFFALO, NEW YORK

PUBLISHERS OF "FAN ENGINEERING" HANDBOOK

Canadian Blower & Forge Co., Ltd., Kitchener, Ont. Sales Representatives in all Principal Cities

VENTILATING AIR CLEANING AIR TEMPERING INDUCED DRAFT EXHAUSTING
FORCED DRAFT COOLING HEATING PRESSURE BLOWING

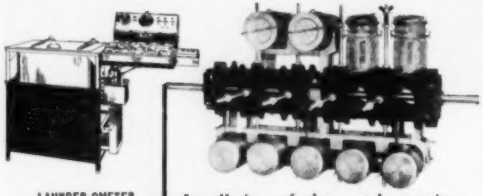
For more information, write direct or use Reader Service post card.

Speed up your Launder-Ometer to 10 TIMES its present testing rate with . . .

Atlas Metal Containers

Give the same color loss test in 1/10 the time required for standard tests in glass jars.

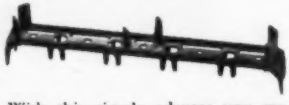
The accelerated action of the steel containers is due to the shape and size of these metal cylinders which are 3½" diameter and 8" long and when mounted on the adaptors in the Launder-Ometer produce a speeded up action that obtains the same results as the standard glass jars in only 1/10th the time.



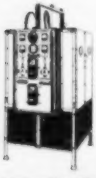
LAUNDER-OMETER

Installation of the metal container adaptors is simple and easy. You do not need to convert all of your containers to metal cylinders unless desired. Adaptors are available for two, or five metal containers. Twenty samples can be tested simultaneously using metal containers, glass jars, or combinations of both.

FADE-OMETER



With this simple adaptor you can transform your present Launder-Ometer into a high speed machine that will produce color loss equivalent to 5 commercial launderings in just 45 minutes. This is the new AATCC washfastness test.



WEATHER-OMETER

Write for special bulletin giving full information on metal cylinder conversion and Accelerated Washfastness tests.

ATLAS ELECTRIC DEVICES COMPANY
361 W. Superior Street, Chicago 10, Illinois, U. S. A.

NEWS ABOUT Suppliers

Equipment Suppliers

Beckman Instruments, Inc., Pasadena, Calif., has purchased approximately 40 acres in the Fullerton-La Habra area of California for building modern facilities for the development and manufacture of precision instruments and advanced electronic equipment. Plans are to develop the property as soon as restrictions on steel and other building supplies make it possible.

Canusa Plant - Equipment Corp., Arlington, N. J., is the new name of the former American Textile Engineering, Inc. The newly named affiliate of Kearny Mfg. Co., Inc., has as its president C. F. Dulken, Sr., and as vice president in charge of sales, C. S. Egues.

Carrier Corp., Syracuse, N. Y., has named Russell H. Gray, former head of the Atlanta, Ga., office, to be assistant to the vice president. He is succeeded in Atlanta by Marion H. Darby, former sales engineer.

Cocker Machine & Foundry Co., Gastonia, N. C., has elected D. L. Friday vice president and general manager. For the past seven years, Mr. Friday has been secretary and general manager. Among other officers elected were Mrs. Mary L. Cocker, president and treasurer; A. G. Myers, vice president; and John Cocker III, vice president.

Diehl Mfg. Co., Somerville, N. J., has appointed William G. Stainton its Southern district manager, with headquarters in Atlanta, Ga.

Draper Corp., Hopedale, Mass., is completing its new building at Thomasville, Ga. Operations of the Georgia branch are in charge of H. E. Kelly.

Foster Machine Co., Westfield, Mass., has transferred Howard E. Swift from the sales department to head up a special department now handling defense work. Company textile equipment will continue to be supplied as much as CMP will allow.

IRVING H. VERRY has retired from active association with Crompton & Knowles Loom Works, Worcester, Mass. Mr. Verry joined the parent company in 1890, became a vice president of the organization in 1917, and was general sales manager from 1939 to 1948.

Johnson & Bassett, Inc., Worcester, Mass., at its recent annual meeting re-elected Chester E. Williams president and treasurer and also elected him chairman of the board. Jefferson E. Williams succeeded his father as general manager of the corporation and also was elected vice president. Other officers elected were Samuel S. Spence, assistant treasurer; and James J. Navin, second vice president.

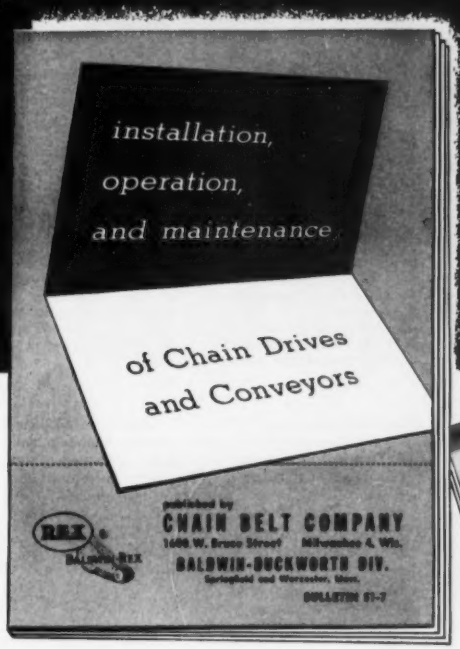
Kearny Mfg. Co., Inc., Kearny, N. J., has appointed Ian M. Haldane & Co., London, Ontario, as the Kearny representative for Canada.

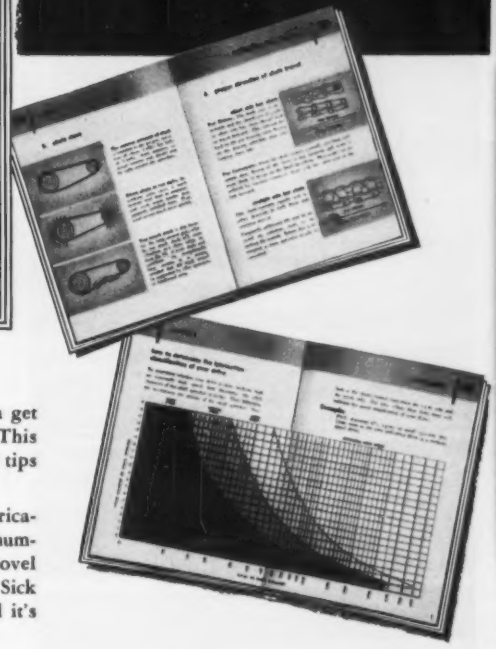
Market Forge Co., Materials Handling Div., Everett, Mass., has appointed Jonathan Handy Co., New Bedford, Mass., its local distributor in that area. Jack Somers is in charge of sales of the division's products.

Minneapolis-Honeywell Regulator Co., Philadelphia, Pa., has named Stephen A. Keller general manager of the valve division, succeeding James H. Binger, who continues as vice president of the division. K. R.

TEXTILE MEN!

this book helps you get more from your chains and sprockets





Here's just what you're looking for to help you get longer life from your chain drives and conveyors. This new pocket-size handbook is packed with useful tips that are of real value.

There are chapters devoted to installation, lubrication, operation, repair and storage as well as a number of helpful sketches, charts and graphs. One novel feature is a detailed check chart on "Cures for Sick Chains." It's a book you'll want and keep, and it's yours for the asking. Send for your copy today.

REX
BALDWIN-REX

Chain Belt COMPANY
OF MILWAUKEE

JUST USE THE COUPON

Chain Belt Company 52-407
4778 W. Greenfield Ave.,
Milwaukee 1, Wis.
Gentlemen: Please send me ( ) copies of your Bulletin 51-7.

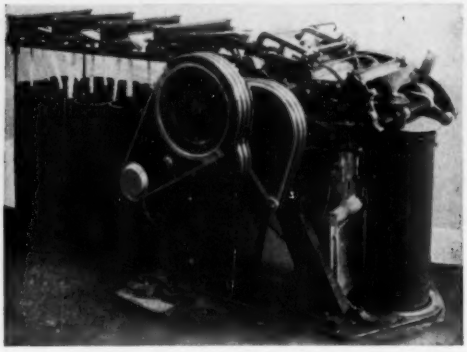
Name.....
Company.....Dept.....
Address.....
City.....State.....

TEXTILE MACHINES S. P. A.,

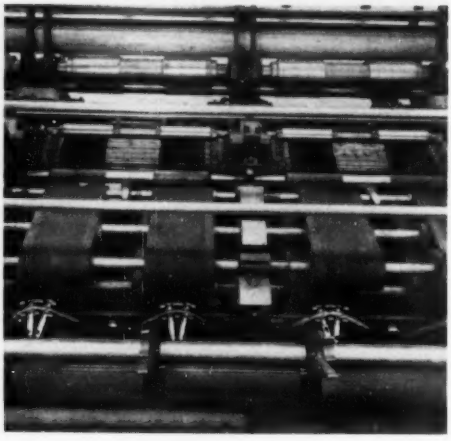
Isotta Fraschini

CONTINENTAL COMBING AND SPINNING MACHINERY FOR

WOOL - BLENDS - SYNTHETICS



Rectilinear Comb for Wool & Synthetics



OPEN GILL BOX

with special twist tubes for blends and synthetic fibres.

Built with from 8–25 heads. Delivery speeds up to 30 yds. per min., sliver produced from 5–30 grs. per yd. 4 slivers per head.

Pin control extended through one *more operation* after *Pin Drafters* or *Intersecting Gill Boxes.*

Slivers for yarn up to 26s can be processed *directly* on the *Ring Spinning Frame* giving positive *fibre control throughout the drawing processes.*

Write today for complete information.

STELLITE AMERICAN CORP.

Sales Representatives of Stellite Soc. In Acc. Sempl. Milan, Italy

60 East 42 St., New York 17 Phone: Murray Hill 7-0413

308 For more information, write direct or use Reader Service post card.

News About SUPPLIERS (Continued)

CLINTON F. ROBINSON has been elected president of Carborundum Co., Niagara Falls, N. Y., succeeding H. K. Clark, resigned. Paul B. Brown, Clarence E. Hawke, and William H. Wendel were elected vice presidents.

STEVEN P. J. WOOD has been elected executive vice president of Warner Electric Brake & Clutch Co., South Beloit, Ill. With the company since 1946, Mr. Wood was named vice president in 1949.

Knoblauch continues as director of sales activities. Howard MacDonald succeeds Mr. Keller as the division's plant superintendent.

Morse Chain Co., Detroit, Mich., has appointed E. E. Wesselhoff assistant chief engineer. He has been succeeded as branch-office manager at Boston, Mass., by H. N. Tyler.

Package Machinery Co., East Longmeadow, Mass., has elected Roe S. Clark president to succeed Roger L. Putnam, who is now on leave of absence in Washington, D. C., as Director of the Economic Stabilization Agency. Mr. Clark has been associated with the company since 1916. Elected treasurer in 1931, he has been a vice president, director, and executive-committee chairman.

Proctor & Schwartz, Inc., Philadelphia, Pa., has named Joseph P. Christ manager of the company's newly opened Spartanburg, S. C., sales and service branch. He succeeds Walter Egbert, resigned. Mr. Christ was assistant manager at Cohoes, N. Y.

Reliance Electric & Engineering Co., Cleveland, Ohio, has appointed Norman R. Meier sales-application engineer at the Boston, Mass., district sales office. He will work under L. M. Dunning, Boston district manager. The company has moved its sales offices in Detroit and Cleveland to larger quarters.

Union Special Machine Co., Chicago, Ill., has made known the retirement of Alex J. Brown, representative in New York State. He has been succeeded by Jack R. LeTourneur, who is making his headquarters at Utica, N. Y. Frank Loglisci succeeds Mr. LeTourneur in Connecticut and lower New York State, and Joseph LaVecchia and Edwin J. Yowell are covering Yonkers, N. Y. in addition to the New York City territory.

Van Vlaanderen Machine Co., Paterson, N. J., has announced expansion of plant facilities in anticipation of the growth in processing of synthetic fibers, both by themselves and in blends with rayon and the natural fibers.

Chemical and Yarn Suppliers

Arnold Hoffman & Co., Providence, R. I., has appointed William M. Shine director of market development. With the company since June, 1950, Mr. Shine will work out of the New York Office.

Celanese Corp. of America, New York, has made Paul D. White textiles sales-promotion manager. At the high-alpha pulp plant of the Columbia Cellulose Co. Ltd. subsidiary at Port Edwards, B. C., production of yarns for the textile industry is planned. Canadian Chemical Co. Ltd. of Ed-

Dependable Source for Chemical Raw Materials

1 *Add equal amounts of your product to each jar.*

2 *Add small quantity of Carbose to one and dissolve.*

3 *Add carbon suspension to each jar.*

4 *Place a cloth swatch in each.*

5 *Cap jars and shake for 10 seconds.*

6 *Withdraw swatches.*

7 *Place swatches in rinse water.*

8 *Rinse by shaking for 5 seconds.*

9 *Remove swatches . . . and COMPARE!*

Make Wyandotte's 2-minute soil deposition test yourself. See how Carbose boosts the performance of *your* detergents and soaps.

BULLETIN BOARD

Soda Ash:

To insure adequate supply for all our customers even in periods of short supply, we are expanding our soda ash production facilities. **Meanwhile, there's plenty to go around now.**

New Pluronics®:

Look into this **first 100%-active flake nonionic ever commercially available.** Another Wyandotte first with application in scouring, sizing, carbonizing, desizing and dye leveling of wool, cotton, silk and synthetics.

Caustic:

Our rayon-grade caustic soda is virtually **free** from sodium chloride, sodium chlorate, iron and other impurities. Produced by the mercury-cell method, it's **naturally pure.** Samples available.

Kreelon®:

Much comment from detergent compounders on newly improved Kreelon (an alkylarylsulfonate) has to do with **its more rapid solubility, efficient detergency and wetting properties.** Ask for samples and a complete report.

"Wyandotte and the Textile Industry":

A new pamphlet briefly describing properties, application and shipping information of Wyandotte's line of products for the textile field. Send for it.

ONE PERCENT Wyandotte Carbose* improved detergency up to 40%!

It's no surprise! In carefully controlled tests on cotton, this outstanding "detergency promoter"—as little as 1%—*increased soil removal and whiteness retention from 10% to 40%* in a number of different formulations with synthetic detergents and builders.

The promoting properties of CARBOSE make it a valuable assistant to either syndets or soaps, with or without builders, for kier boiling, scouring and other wet-processing operations, resulting in greater mileage from your detergent solution, more effective cleaning at a considerable saving of raw materials.

This superior product is typical of Wyandotte. For the quick facts on current production, improvement and development of other Wyandotte chemicals for textile operations, read the "Bulletin Board," left. For samples that you can test yourself, and for more complete information, write—*Wyandotte Chemicals Corporation, Wyandotte, Michigan. Offices in Principal Cities.*

*REG. U.S. PAT. OFF.

Wyandotte
CHEMICALS
FOR SOAPS AND DETERGENTS

For more information, write direct or use Reader Service post card.

YOU'LL
ECONOMIZE
when you
DESIZE
with
EXSIZE-T

The great economy of Exsize-T has won praise from many of America's largest textile mills!

This safe, speedy and efficient desizing agent contains no chemicals. It is a pure enzyme concentrate! Find out about Exsize-T.

Write for free booklet.

PABST BREWERIES

"Exsize-T" is the registered trademark of Pabst Brewing Company.

PABST SALES COMPANY
221 N. La Salle Street
CHICAGO 1, ILLINOIS

*Copr. 1952, Pabst Brewing Company, Milwaukee, Wisconsin.

News About SUPPLIERS (Continued)

WALTER M. BRICE, Jr., has been appointed manager of supply sales for the Spartanburg, S. C., Div., Draper Corp., Hopedale, Mass. Mr. Brice has been with Draper since his graduation from the University of Georgia. He is working under Donald Marshall.

ROBERT G. KAVANAGH has joined Steel Heddle Mfg. Co., Philadelphia, Pa., and replaces Windsor Bates as field engineer in the Great Lakes territory. Mr. Bates has transferred to New England to work with Harry Hill, Steve Moore, and Walter Bates.

monton, Alta., has made Dorsey Ensor superintendent of its cellulose-acetate section. He was formerly assistant superintendent of the Celanese plant at Cumberland, Md.

Chemstrand Corp., Decatur, Ala., has appointed Robert H. Helle technical superintendent to direct process control and development at the new Acrilan plant. Julian L. Bibb, Jr. has been made personnel superintendent at Decatur.

American Cyanamid Co., Calco Chemical Div., Bound Brook, N. J., has appointed Bengt O. L. Domander a sales representative in Ontario, Canada. A native of Finland, Mr. Domander came to Canada in 1927.

Diamond Alkali Co., Cleveland, Ohio, has transferred L. J. Polite, Jr., to the organic chemicals division. He has been transferred to the sales staff of Kolker Chemical Works, Inc., Newark, N. J., a Diamond subsidiary.

E. I. du Pont de Nemours & Co., Wilmington, Del., has appointed Dr. Lawton A. Burrows general technical director of the textile-fibers department. Dr. Chiles E. Sparks has been made director of nylon research for the company. He had been assistant director. James R. Kelly has been made planning manager of the manufacturing division for Dacron polyester fiber. James W. Mitchell has been transferred from the Martinsville, Va., plant, where he was manufacturing superintendent, to nylon sales in Charlotte, N. C. Dr. James Bellezza, Jr., former technical superintendent at Martinsville, has succeeded Mr. Mitchell as manufacturing superintendent there.

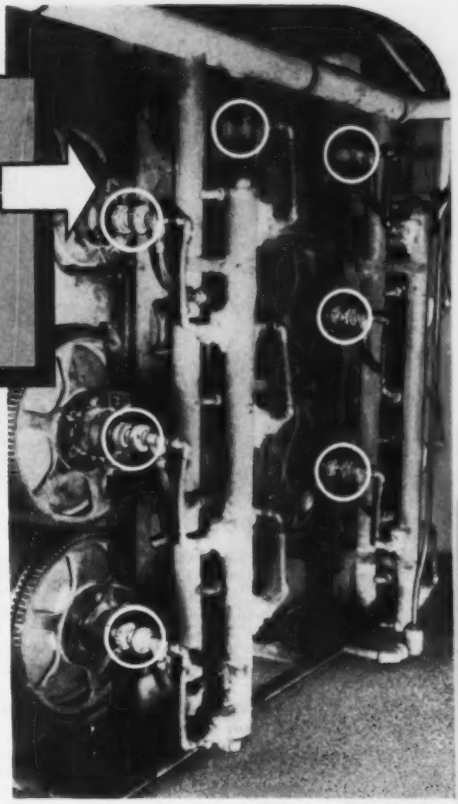
Glass Fibers, Inc., Toledo, Ohio, has appointed Emil H. Balz director of research. Dr. Balz has been both a consultant to the glass company and had been in charge of the glass and plastic-laminate laboratory.

Hart Products Corp., New York, has made known a $400,000 expansion plan that includes complete modernization of an 80,000-sq.ft. brick building in Jersey City, N. J., that will be eventually the company's new plant and laboratories. Alterations and installation of equipment will be completed by June.

Industrial Rayon Corp., Cleveland, Ohio, has made known that it is increasing its rayon tire-cord production by about 15,000,000 lb. The new expansion, authorized by NPA, is expected to be completed by the end of 1953. The estimated cost of the expansion is $15,000,000. The new expansion is in addition to the one completed in the middle of 1951.

Minnesota Mining & Mfg. Co., St. Paul, Minn., has opened a new regional sales office and warehouse building in Atlanta, Ga. Russell D.

"Barco Revolving Joints give us the PERFORMANCE we want on dry can ranges!"

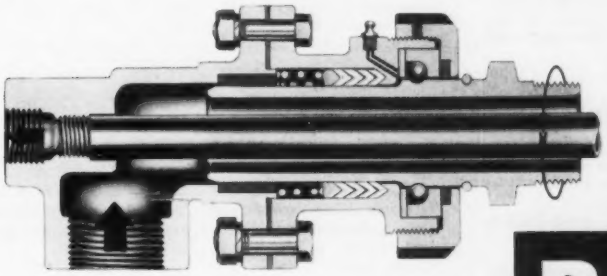


This photograph shows Type IBR Barco Joints installed on a range of 12 dry cans in a prominent southern textile mill.

Says CHIEF ENGINEER in this Southern Mill

Operating engineers throughout the country are reporting the benefits they receive from Barco's new *improved* Type IBR Revolving Joints. These are benefits that come from the *correctness* of Barco's design. There is minimum increase in torque (friction) under increased steam pressure—thanks to Barco's exclusive "CTR" V-type seal rings and ball bearings. Also note the wide spacing between bearings which holds bearing loads and wear to a minimum.

Barco builds a complete line of standard revolving joints in sizes ranging from ½" to 2" and special in sizes to 5". Pressures to 250 psi, steam, or 1000 psi, hydraulic. Speeds to 2500 rpm. *Barco Engineers are at your service; ask for recommendations.*



For information about Barco Revolving Joints, ask for Bulletin 306.

- Better Temperature Control where steam is used for heating rolls due to better circulation.
- Free-Floating, Low Torque Installations.
- Up to 50% Power Savings.
- Exclusive "CTR" V-Type Seal Rings—*chemically inert.*
- Ability to Withstand Vibration and Hard Usage.
- Low Maintenance; No Adjusting. Holds seal running or standing.

BARCO MANUFACTURING CO.

1834E Winnemac Ave., Chicago 40, Illinois
In Canada: The Holden Co., Ltd.

BARCO *Revolving* **JOINTS**

For Textile Machine Dryers, Slashers, Dry Cans, Sanforizers

NOW— a dependable, low-cost Semi-automatic Door Control

. . . suited to your needs!

Here is positive-action door control that can help you save time and money. The National Pneumatic Semi-automatic Door Control, shown above, is easily installed, easily operated — performs both opening and closing operations from either side of a door by means of a simple electrical pull switch. This door control is applicable to all types of sliding, swinging or folding doors.

The NP Semi-automatic Door Control is pre-piped and pre-wired for ease of installation.

Door opening and closing is prompt, speed is adjustable, and doors are automatically held open for safe clearance until gently closed by pulling switch from further side.

The NP Semi-automatic Door Control is used extensively in institutions, commercial buildings and factories, to conserve heat, to reduce costs of air conditioning, to maintain correct temperature and humidity, to exclude dust, dirt, drafts and noise, to isolate hazardous areas and to facilitate passenger and freight traffic.

NP also makes:

Fully Automatic Controls

- Electro-Field
- Photoelectric

Semi-Automatic Controls

- Electrical: — with pull switches, push-button switches or foot switches.
- Pneumatic: — with pull valves, push-button valves or foot valves.

All NP Door Controls are precisely engineered and built — they stay in adjustment and give long, trouble-free service.

Made by National Pneumatic Company, for nearly fifty years the principal supplier of door control equipment for railroads and transit systems, where dependability is of paramount importance.

Send today for publication 1070.

NP **NATIONAL PNEUMATIC CO., INC.**
125 Amory Street, Boston 19, Massachusetts
WORLD'S LARGEST MANUFACTURER OF DOOR CONTROL EQUIPMENT

News About SUPPLIERS (Continued)

CHRISTOPHER C. GANOS (left) has been named field-service engineer for the textile-machinery division of Rodney Hunt Machine Co., Orange, Mass. With the company since 1947, he was formerly a supervisory erector. L. VINCENT NEESE (right) a Georgia Tech graduate, has joined the Charlotte, N. C., office of the company as a sales engineer in the South.

Baird, former office manager at High Point, N. C., has been made cellophane-tape sales manager at Atlanta. Louis F. Weyand has been made executive vice president of the overall company. Robert W. Young has been made chairman of the board of the international company.

Monsanto Chemical Co., Merrimac Div., Everett, Mass., has appointed Richard T. Clark sales manager of the textile-chemicals department in Boston, Mass. Thomas F. Gogan succeeds Mr. Clark as New York branch manager. Daniel T. Shedd has been transferred from sales development to sales representation in southeastern New England. Robert J. Johnson has joined the technical-service section.

Rohm & Haas Co., Philadelphia, Pa., has opened a new office and warehouse facilities at Charlotte, N. C., to aid in the distribution of textile chemicals to Southern plants. The new quarters contain 12,000 sq.ft. in a one-story brick-and-steel building. The operation is under the direction of P. H. Del Plaine, who also serves as Southern-district sales manager of the textile-chemicals department. Other representatives working out of Charlotte are W. A. Wardell, Russell G. Lawrence, and C. L. Smith.

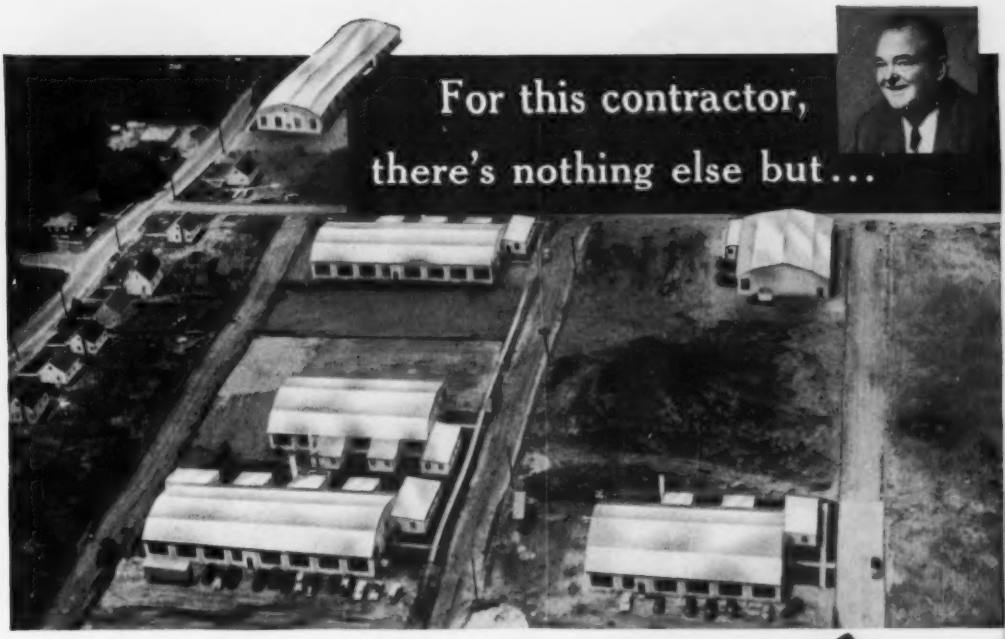
Other Services

American Assn. of Textile Chemists & Colorists has made a contract with the British Society of Dyers & Colourists for the publication of their "Colour Index," a study and tabulation of all dyestuffs and their properties commercially manufactured in the U. S., Great Britain, France, Germany, Switzerland, and other countries of the world. The first printing will be ready for distribution in 1953.

Fessenden Blanchard & Morrell, New York, management and marketing consultants, is the new name of the firm that made the recent report on the competitive position of Massachusetts industry. Mr. Morrell had previously been senior associate in the Blanchard firm.

Robert Gair Co., Inc., New York, has completed a large shipping-container plant at Teterboro, N. J. The factory measures 680x230 ft., or over 150,000 sq.ft. of manufacturing space. All the manufacturing operations are located on one floor.

National Assn. of Textile Machinery Mfrs., Boston, Mass., has changed its name to American Textile Machinery Association, effective immediately. Officers for the new year are: president, J. Hugh Bolton, Whitin Machine Works; vice-president, Frederick W. Howe, Jr., Crompton & Knowles Loom Works; treasurer, Samuel F. Rockwell, Davis & Furber Machine Co.; and secretary, Max F. Thompson, Whitin Machine Works.

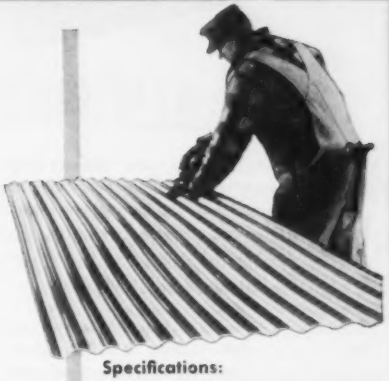


George Mole has been a contractor and industrial building owner in the Amityville, Long Island, area for 25 years. He discovered Reynolds *Lifetime* Aluminum Industrial Corrugated in 1949. He put his first 15,000 square feet on the Amityville School... then used it on the Copiague and Lindenhurst schools and on 13 other industrial and commercial buildings. Let him tell you why:

"First of all economy. Initial cost is low. The insulation value means still more economy, as well as more comfort inside. Low maintenance and long life extend economy through the years. And lighter weight (56 pounds per square) can save on construction.

"My Reynolds .032 roofs have set a standard in this area that I am proud of. I have more buildings planned, and if I can't get this roofing I won't build—that's how sold on Aluminum I am."

Call Reynolds for literature and technical assistance... offices in principal cities. Check your classified phone book for our listing under "Building Materials" or write to Reynolds Metals Company, Building Products Division, 2022 South Ninth Street, Louisville, Kentucky.



Specifications:

Thickness .032"
Corrugations 7/8" deep, 2-2/3" crown to crown
Uniform load support (roof) 80 p.s.f. on 4' purlin spacing
Roofing width 35", coverage 32"
Lengths 5', 6', 7', 8', 9', 10', 11', 12'

Military demands for aluminum reduce supply, but Reynolds is rapidly expanding aluminum capacity. Rated orders receive priority handling.

REYNOLDS *Lifetime* ALUMINUM INDUSTRIAL CORRUGATED

"The Kate Smith Evening Hour" on Television, Wednesdays—Tallulah Bankhead in "The Big Show" on Radio, Sundays—NBC NETWORKS

You can READ ALL ABOUT IT IN

OUR *NEW* BULLETIN!

Write for our new Bulletin PG—a complete description with diagrams and photos of actual installations. See how Mount Hope Guiders operate in any position, accurately control any type of material, ahead of any type of machine. Special advantages include—

Precision Guiding in Narrowest Limits
Adaptability to All Weights
Positive but Gentle Continuous Control
Purely Mechanical Faultless Operation
Rustproof to Prevent Soiling Material
Reversible Rubber Rolls for Long Life
Waterproof Bearings Guarded by Shields

ANOTHER Mount Hope CLOTH HANDLING DEVICE

Read our offer of the best possible guiding service, and our guarantee in Bulletin PG. Send for your copy today.

MOUNT HOPE MACHINERY COMPANY
15 FIFTH STREET • TAUNTON • MASSACHUSETTS

314 For more information, write direct or use Reader Service post card.

NEWS ABOUT Mills

Cotton Mills

American Thread Co., New York, N. Y., expects to have its new plant at Sevier, N. C., completed by September. The air-conditioned, one-story plant will have 500,000 sq. ft. of floor space. Exterior walls will be of red brick, and interior walls will be of glazed tile throughout the finishing area. The steel-frame structure will have a pre-cast concrete roof slab covered by tar and gravel roofing. Insulation will be provided by three inches of glass-fiber board between the concrete deck and the tar-and-gravel finish. The plant will employ about 1,000 persons.

Avondale Mills, Sylacauga, Ala., has completed a new two-story warehouse to handle finished goods from all company plants. Lockwood Greene Engineers, Inc., was architect and engineer for the project.

Cabin Crafts, Inc., Dalton, Ga., plans a one-story addition of about 20,000 sq.ft. of floor space to its rug division at North Dalton.

Carolina Fine Fabrics, Inc., Hickory, N. C., has purchased Hickory Fabrics Co. Future plans for the mill, which produces fine upholstery material, will be announced later.

Hickory Spinners, Inc., a branch of Shuford Mills, Inc., Hickory, N. C., has purchased the property of Chew Mfg. Co. in Connelly Springs, N. C. The purchase price, was not announced. The company has not announced its plans for the property.

Lawrenceburg, Tenn.—Local chamber of commerce officials have announced that Wamsutta Mills, New Bedford, Mass., will establish a new $4,500,000 plant to employ about 750 persons here as soon as critical materials become available. The chamber said that Wamsutta officials have agreed to establish the plant under provisions of a new industrial-revenue bond act that provides for the city to construct the mill building through a voter-approved bond issue. Rent paid by Wamsutta would be applied to principal and interest of the bond issue.

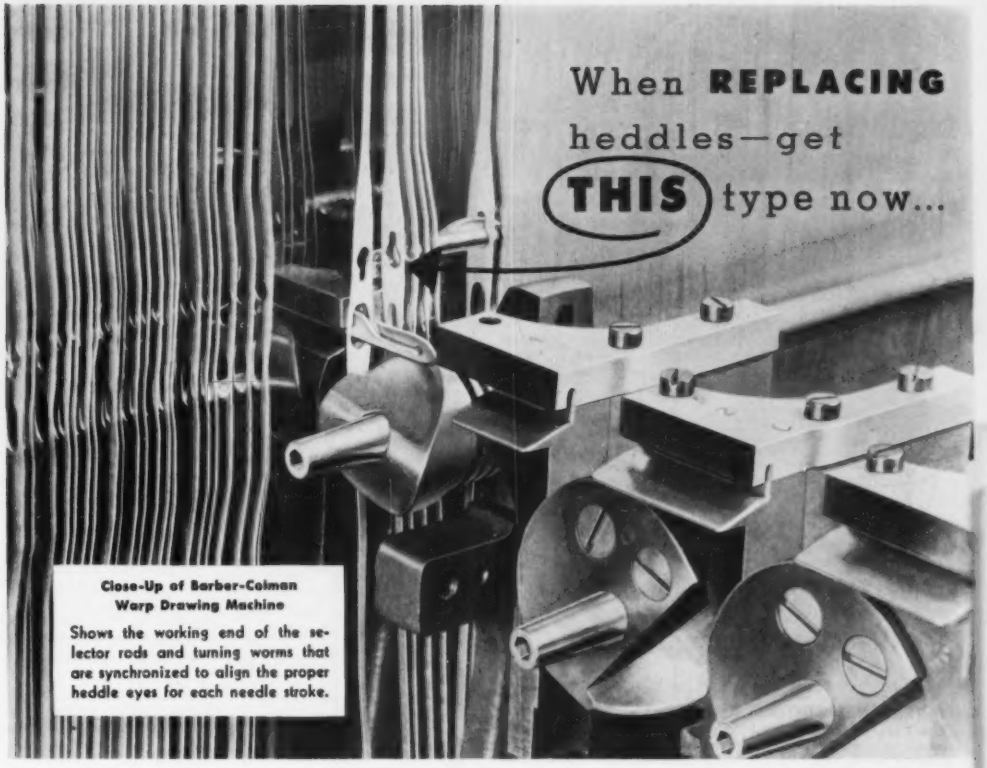
Linen Thread Co., Paterson, N. J., has started work on a $115,000 laboratory addition to its Grand St. plant. The 14-room extension will also house the research department.

Minette Mills, Grover, N. C., has begun construction to expand its operation by 20%. The building program is adding 10,000 sq. ft. of floor space to the old plant. The company now operates 76 jacquard looms producing bedspreads, ticking, and upholstery fabrics.

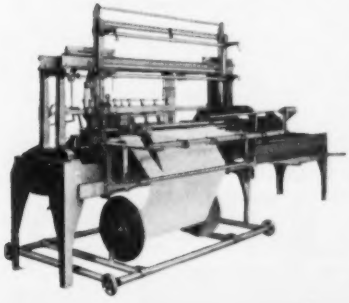
Ora Mill Co., Shelby, N. C., plans an enlargement and extensive modernization. The addition to the plant will be about 15,000 sq. ft. Fiske Carter Construction Co. will supervise the project. The weave room will be air conditioned, and considerable new machinery will be installed.

Quitman Mills, Inc., Quitman, Ga., has completed a $500,000 remodeling program that was started last fall. New machinery was installed throughout.

Trent Cotton Co. Ltd., Trenton, Ont., subsidiary of Hamilton Cotton Co., Hamilton, Ont., has acquired additional land adjacent to its present plant and has begun a $300,000 renovation program. The project includes erection of a 10,000-sq.ft. addition to the main plant and modernization of plant design and layout. Some new spinning machinery is being installed, and some old frames are being rebuilt. New individual-drive motors are being installed. Yarn production will be increased by 5% when the renovation program is completed.


When REPLACING
heddles—get
THIS type now...
Close-Up of Barber-Colman Warp Drawing Machine
Shows the working end of the selector rods and turning worms that are synchronized to align the proper heddle eyes for each needle stroke.

By replacing your heddles with key-hole type **NOW** you will be ready for a Warp Drawing Machine **LATER**



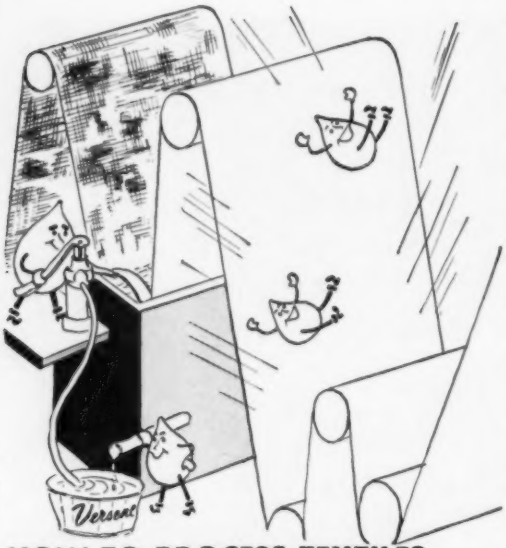
The Barber-Colman Warp Drawing Machine requires equipping your looms with harness having steel heddles of the type shown above. Sometimes the cost of such heddles may amount to more than the cost of the machine. These facts should not discourage consideration of the machine, in view of the advantages of substantial cost savings in warp preparation. Since you are replacing groups of your heddles frequently and constantly as they wear out — why not replace your worn-out harness with the type that can be used on a Barber-Colman Warp Drawing Machine? Then, when you are ready for the machine, the problem of special heddles will have been solved. For details in connection with such a program, we suggest you consult your Barber-Colman representative.

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

BARBER-COLMAN COMPANY

ROCKFORD • ILLINOIS • U. S. A.

FRAMINGHAM, MASS., U. S. A. GREENVILLE, S. C., U. S. A. MANCHESTER, ENGLAND MUNICH, GERMANY



HOW TO PROCESS TEXTILES WITH ...Versene*

WHY VERSENES* SHOULD BE USED

The Versenes may be used in the wet-processing of textiles — woolens, cottons, rayons, synthetics and blends — *to improve quality, prevent spoilage, shorten processes or to eliminate certain operations.*

WHEN TO USE THEM

To prevent the deposition of, or remove insoluble soaps from textile fibers — to give a good "hand" and assure level dyeing • To overcome the effects of metal contamination in dye baths • To solubilize stearate soaps • To increase detergency and act synergistically with synthetic soaps • To efficiently complex iron in any caustic solution (Versene T) • In Kierboiling (Versene T) to increase whiteness and prevent iron stains and pinholing • In Mercerizing (Versene T) to produce a whiter thread or fiber • In Peroxide Bleaching add Versene to extend life and action of peroxide in bath and on fabric as well as to greatly reduce scale problems on equipment • In Rayon manufacture to give whiter yarn.

WHAT THEY ARE

Versenes are a great and growing family of powerful organic Chelating Agents. They control cations in solution by keeping them in soluble complex form. They are stable at high temperatures throughout the pH range. Unduplicated in uniformity of quality and complexing power, they are made only by the Bersworth Chemical Company under processes originated, developed and patented by F. C. Bersworth. Available in wet or dry form, they invite investigation. Send for Technical Bulletin No. 2. Ask for samples. Write Dept. D. Chemical Counsel on request.

VERSENE* WATER TEST KIT. Tells Total Hardness in 2 minutes. Accurate to 1 grain per gal. Versenate method. Complete with instructions $5.00 Postpaid.

*Trade Mark

"CHEMISTRY'S MOST MODERN CHEMICALS"

BERSWORTH CHEMICAL CO.
FRAMINGHAM, MASSACHUSETTS

Warehouse Stocks
Providence, R. I. — George Mann
San Francisco — Los Angeles — Griffin Chemical Co.
Brooklyn, New York — Siegel Chemical Co.
Salt Lake City — Wasatch Chemical Co.
Chicago — Kraft Chemical Co.
Charlotte, N. C. — C. S. Tanner Co.
Dallas — Houston — New Orleans — St. Louis — Tulsa — Oklahoma City — Wichita — Borado & Page, Inc.

News About **MILLS** (Continued)

Woolen and Worsted Mills

Albany Felt Co., Albany, N. Y., has acquired from Kieckhefer Container Co., Inc., Delair, N. J., all of its equipment and supplies for production of paper-machine felt. For the time being, the machinery will remain at its present location.

Assabet Mills, American Woolen Co., Maynard, Mass., has reopened to begin production on a large Army contract for 16-oz. wool-nylon flannel shirting. The plant closed recently after completing a successful run on a large order of 28-oz. Air Force velours. Peter N. Stalker is manager.

Bachmann Uxbridge Worsted Corp. has remodeled its showrooms and offices at 257 Fourth Ave., New York, N. Y.

Copp Woolen Mills Ltd., Port Elgin, N. B., has extended its plant and installed additional machinery. Space in the three-story carding, spinning, and finishing plant has been increased by one-third. New equipment installed includes one set of cards, two 312-spindle mules, one motor-driven yarn twister with tape-drive spindles, one 4-string washer, and one 6-string dye tube for mothproofing blankets. The company produces woolen yarns and blankets.

Greenville, Miss.—The city council has received a low bid from M. V. Arledge, Jackson, Miss., at $1,175,000 for installation of mechanical systems, including plumbing and heating, at the new mill to be occupied under lease by Alexander Smith, Inc., Yonkers, N. Y.

Hamilton, Ala.—The town council has let a contract to C. W. Williams, Hamilton, for a one-story building to be occupied by Marion Mills for the manufacture of woolen goods. Cost is estimated at $300,000. Lawrence S. Whiten, Birmingham, Ala, is the architect.

Jas. Holdsworth & Sons (Canada) Ltd., a subsidiary of J. Holdsworth & Bros. Ltd., Marsh Works, Huddersfield, Eng., is planning a further expansion of its plant at 2001 Elginton Ave. East, Toronto, Ont. Additional card-setting machines are being installed.

F. C. Huyck & Sons plans to move its entire production of Kenwood blankets from Rensselaer, N. Y., to its new plant in Cavendish, Vt., by July 1. The Rensselaer plant will then be devoted to the production of papermaker's felts.

John M. Lalor & Co. Ltd., Toronto, Ont., recently opened a new two-story concrete-and-brick addition to its main waste and shoddy plant. The building measures 200x50 ft. The entire plant has been redesigned.

Geo. Pattinson & Co. Ltd., Preston, Ont., has completed an extensive modernization program. New machinery has been installed in the weave room, including 27 Crompton & Knowles W3 automatic looms, 90 in. wide. New machinery in the spinning and winding departments includes four Whitin Model-E spinning frames, two Schweiter automatic winders, and one Universal Roto-coner. One Platt spinning frame and 12 mules have also been installed. New finishing machinery includes one Sellers shear, one Gessner press, one napping machine, and other equipment.

Peerless Woolen Mills, Rossville, Ga., has installed a carbonizing range that runs 100 yd. per min. Also installed was a continuous washer, 600 ft. long, running 200 yd. per min. Cost was $200,000.

Springfield Woolen Mills, Springfield, Tenn., plans a one-story addition to its present plant, to be used for warehouse service. The 60x100-ft. building will be of brick veneer.

M. T. Stevens & Sons Co., North Andover, Mass., is completing the second of two new storage buildings at Dracut, Mass. The buildings have a combined area of 14,000 sq. ft. Luria Engineering Corp., Bethlehem, Pa., is designer and builder of the standardized steel frames of which the buildings are constructed. Finished wool goods will be stored in the buildings.

DAMP-TEX

PERFORMANCE CREATES CONFIDENCE

Mr. Plant Manager:

More than 9600 industrial plants have selected Damp-Tex to solve their wet surface maintenance problems.

Damp-Tex, widely known as The Wet Surface Enamel, is your most reliable, economical method of transforming dingy, damp, unsanitary surfaces into lasting porcelain-like beauty at low cost.

You too, may use Damp-Tex with absolute confidence because through the years it has rendered completely satisfactory service to its many users. For you it will resist rot and rust, and corrosion from moisture, steam, alkali, gases, etc., retards fungus growth (with *new improved* factory pre-treatment). You can use it on any paintable interior *wet* or dry surface, changing interiors into glistening porcelain-like beauty. Dries overnight without flavor tainting oder. Available in white and colors.

Write for Folder "AA"

STAINLESS STEEL COATING

Now, for equipment and metal surfaces subjected to extreme alkali and acid conditions. Brush or Spray. Cost less than 4¢ per square foot. Write for information.

FUNGUS TEST

STEAM TEST

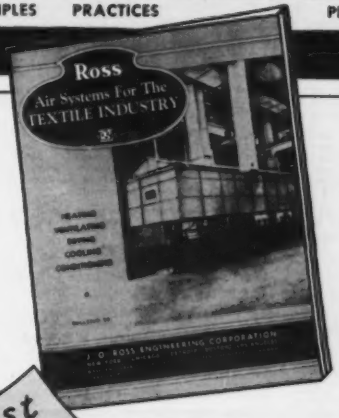
ACID TEST

DAMP-TEX WET OR DRY SURFACE ENAMEL

STEELCOTE MFG. CO., St. Louis 3, Mo.
Canadian Manufacturer
STANDARD PAINT & VARNISH CO., WINDSOR, CANADA
Canadian Industrial Distributor
G. H. WOOD & CO., LTD., TORONTO

A New 20 Page Bulletin For Textile Executives

PRINCIPLES PRACTICES PICTURES



Just Published a letter will bring YOUR copy!

Probably no other single factor has contributed more to the recent advances in producing and converting textiles than the modern, more scientific use of AIR in processing.

Here in this new bulletin is the knowledge, experience and achievements gained from more than 30 years of working with textile and paper mills to produce more and better products—faster and more economically—with AIR.

How and why ROSS Systems are being used throughout the industry to prevent spoilage and plant deterioration, improve working conditions, heat, cool, ventilate and speed drying—is explained in detail. Sources of heat, types of enclosures, methods of handling materials are among subjects treated.

Any textile executive seeking to improve production and reduce operating costs can profit from the pages of this Bulletin No. 30. For your copy write to:—

J. O. ROSS ENGINEERING CORPORATION

Designers and Builders of Air Processing Systems

ROSS SYSTEMS

NEW YORK 22—444 Madison Avenue
CHICAGO 6—201 N. Wells Street
BOSTON 9—79 Milk Street
DETROIT 4—9225 Grand River Avenue
LOS ANGELES 17—600 St. Paul Avenue

ROSS ENGINEERING OF CANADA, LTD.—MONTREAL, VANCOUVER
CARRIER ROSS ENGINEERING COMPANY, LTD., LONDON, ENGLAND

BARNES SERVICE *Consulting Engineers*
TO THE TEXTILE INDUSTRY FOR OVER ¼ CENTURY

We are pleased to announce the expansion of our consulting services to embrace:

PRODUCTION and INVENTORY PLANNING and CONTROL
SALES ANALYSIS and FORECASTING
SALES PLANNING and PROGRAMMING
SALES and OFFICE STANDARD PRACTICE INSTRUCTIONS
ORGANIZATION ANALYSIS PERSONNEL APPRAISAL

These services will be under the direction of Mr. Peter M. Fekula now affiliated with Barnes Textile Associates, Inc. They will complement our established consulting activities in the fields of general engineering, industrial engineering, cost and quality control, materials handling and industrial relations.

Mr. Fekula has had broad experience in a variety of industries in both consulting and operating capacities. Recently he completed an outstanding project for a well-known textile company which brought about close coordination of production and sales. He has been able to apply to textiles many of the principles which have proved so successful in the automotive and aircraft industries.

We will be pleased to give further information about the services rendered by our new Peter M. Fekula Division, as well as by our other departments.

Surveys—Reorganizations—New Plant Developments for Cotton, Wool, and Synthetic Yarn and Cloth Processing, Bleaching, Dyeing, Printing and Finishing.

★ Plant Appraisals ★ Mechanical and Operating Surveys—New Methods ★ Scheduling and Planning ★ Work Load Studies, Job Analysis and Evaluation, with Incentive Plans ★ Standard Cost Installations ★ Cost Control Methods

Labormeter Burden-meter Waste-meter

Member: Association of Consulting Management Engineers, Inc.

SALUTING THE TEXTILE INDUSTRY OF THE WORLD — ¼ CENTURY

BARNES TEXTILE ASSOCIATES, Inc.
30 HIGH STREET, BOSTON 10, MASS.
522 FIFTH AVE., NEW YORK 18, N. Y.
910-923 MONTGOMERY BLDG., SPARTANBURG, S. C.
European Agent: Ralph L. Hodara, 101 Reaumur, Paris 2

For Maintained Shrinkage-Perfect Finish—Long Life

HUYCK
COMPRESSIVE SHRINKAGE
BLANKETS

for use in shrinking fabrics to the *"Sanforized"* standard by the compressive shrinking process, are daily meeting the most exacting requirements of finishers throughout the industry. From the lightest and finest fabric to the heaviest denim, there is a special Huyck blanket to meet your specific needs.

Huyck blankets retain high shrinkage and finish properties to the last.

PALMER BLANKETS—also available for your special requirements.

Write for information or see our representative

KENWOOD TEXTILE PRODUCTS

F. C. HUYCK & SONS
Kenwood Mills • Rensselaer, N.Y.

News About MILLS (Continued)

Synthetics Mills

Burlington Mills Corp., Greensboro, N. C., has received a certificate of necessity from the Defense Production Administration for expenditure of $296,000, of which 50% is allowed for expansion of facilities for testing fabrics for defense specifications. Burlington has changed the name of Vamaco Plant, Franklinton, N. C., which the company acquired in 1942, to Franklinton Plant of Burlington Mills. The change was made after extensive plant improvement, begun in 1950, that included enlarging and modernizing the plant and installing new machinery.

Charlotte, N. C.—Jefferson Standard Life Insurance Co., Charlotte, has let a contract to C. M. Guest & Sons, Greensboro, N. C., for a new five-story building to be occupied under lease by Celanese Corp. of America, New York, for office service. The building will contain 200,000 sq. ft. of floor space. Biberstein, Bowles & Meacham, Inc., Charlotte, is the architect and engineer.

Dominion Burlington Mills Ltd., Sherbrooke, Que., is now operating part of its new synthetic filament-yarn throwing and weaving plant. Dominion Burlington is owned jointly by Dominion Textile Co. Ltd., Montreal, and Burlington Mills Corp., Greensboro, N. C. The new plant occupies 115,000 sq. ft. of floor space and is of concrete and brick construction. Equipment in the plant includes modern types of throwing, warping, and slashing machinery and both Crompton & Knowles and Draper looms. The plant is air conditioned throughout. Lee Zackery, manager of the division, was formerly with one of Burlington's units in North Carolina. Marshall Voss is weave-room overseer; Woodward Carson is in charge of the preparation department; Jim Burton is in charge of the throwing department.

Duplan Corp. will move general offices now located in Hazleton, Pa., to Charlotte, N. C. A new office building will be erected. The move will include transfer of the company's engineering, technical, production-planning, raw-material, personnel, purchasing, and timestudy departments. Approximately 80 persons employed in Hazleton will move to Charlotte.

Goodyear Mills, Atco, Ga., has awarded a contract to Wigton & Abbott Corp. to construct a new 300x280-ft. addition that will be air-conditioned and will house twisting and weaving for production of synthetic-yarn tire fabric.

M. Lowenstein & Sons, Inc., will install node-system large-package spinning machinery in the new John A. Lyons Div. now under construction at Anderson, S. C. New model Draper box-type looms will also be installed. Cards are being purchased from Platt Bros. (Sales) Co. Ltd., England. Construction will be of insulated steel and brick. The building, which measures 300x180 ft., will be windowless and air conditioned. Engineering and building will be handled by the Anderson staff of the company.

Madison Throwing Co., Inc., Madison, N. C., will increase

THE WILLIAMSTON, S. C., rayon-weaving plant of Textron Southern, Inc., is building an addition to provide space for 500 new looms. The addition, along the rear of the building, is 83 ft. wide and 530 ft. long. It will be totally enclosed, air conditioned, and finished in glazed tile. Daylight-intensity fluorescent lighting will be installed. Designed by Textron's own engineering department and built by Daniel Construction Co., Greenville, S. C., the project is one of several major expansion programs under way for Textron.

THE STARCH

USED IN A

WELL BALANCED

WARP SIZE

REFLECTS THE INTEGRITY OF THE

PRODUCER

CLINTON CORN STARCH

HAS THE QUALITY WHICH MAKES IT

A SOUND BASIC INGREDIENT

FOR

BETTER SIZING

AND

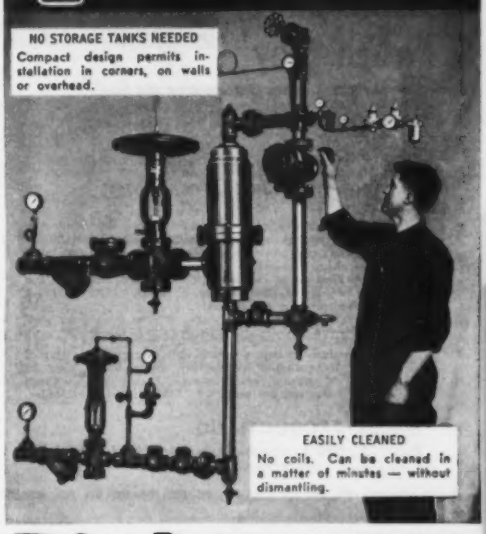
WEAVING

CLINTON

CLINTON FOODS INC

CLINTON IOWA

TEMPERATURE CONTROL IS ESSENTIAL *in* BLEACHING and DYEING


NO STORAGE TANKS NEEDED
Compact design permits installation in corners, on walls or overhead.
EASILY CLEANED
No coils. Can be cleaned in a matter of minutes — without dismantling.

Pick INSTANTANEOUS WATER HEATERS *provide*

ACCURATE CONTROL + REQUIRED VOLUME

HEATS WATER INSTANTLY

PICK Heaters are entirely automatic to provide and accurately maintain water temperatures up to 180° F. Water is heated **instantly**—by steam injection. Exclusive Pressurizer Piston eliminates pipe hammering and shaking. Installation is simple, requiring only ordinary pipe connections. Available in seven sizes with rated capacities of 10 to 200 gallons per minute.

USED BY

Exeter Manufacturing Co.
Kerriglen Finishing Co.
Guyon Mills
Jordan Manufacturing Co.
Pepperell Mfg. Co.
AND MANY OTHERS

Write Dept. TW3 for Details and Specifications

MANUFACTURED BY
PICK MANUFACTURING CO.
WEST BEND, WISCONSIN, U.S.A.

In the Durham Hosiery Mills—Straightening needles is one of many uses for Magni-Focuser in textile mills.

People work better when they SEE BETTER

Magni-Focuser helps Menders, Fixers, Knitters, Mechanics, Inspectors

IN leading textile plants, Magni-Focuser — the binocular magnifier—reduces eye strain and prevents squinting—thereby speeding production, increasing accuracy and minimizing the chance of errors and accidents. Especially valuable in working on 60 gauge, 15 denier yarn. Restores the usefulness of the skilled hands of many older workers whose vision needs a seeing aid.

Leaves both hands free to work

Matched prismatic lenses assure optical accuracy. Normal vision may be resumed by slightly lifting head. Can be worn with or without eye glasses. 10-day trial without obligation. Return if not satisfied. $10.50. Send for folder.

EDROY PRODUCTS CO.

Dept. W, 480 Lexington Ave., New York 17, N. Y.
Cable Address: "SEEBETTER"

BEST DEFENSE AGAINST CORROSION

Start with **TYGORUST**

"the no-prep vinyl primer"

- minimizes surface preparation
- brushes easily—sprays beautifully
- dries hard in 5-15 minutes
- covers up to 500-600 sq. ft./gal.
- goes under any type finish
- adheres to wet or dry rusted steel, to wood, to concrete, or to previously painted surfaces.

Finish with **TYGON "Series TP" PAINT**

"the vinyl finish of maximum protection"

- easily applied by brush or spray
- fast drying and non-oxiding
- fully flexible and chip-resistant
- non-flammable when dry
- easy to clean and long lasting
- resists fumes and spillage of acid, alkalies, oils, greases and water.

Write for full details—ask for Bulletin 720!

360 C

U. S. STONEWARE CO.
AKRON 9, OHIO

News About **MILLS** (Continued)

production by approximately 65% when construction of new facilities is completed around June 1. The new building will be equipped throughout with air-conditioning and refrigeration.

Reidsville Throwing Plant, Reidsville, N. C., a division of Burlington Mills Corp., is being converted into a regional warehousing and shipping operation for that organization.

Textron Southern, Inc., has purchased properties of Vass Cotton Mills Co., Vass., N. C. It is planned to change production from cotton spinning to spinning of rayon blends. Production on the new basis will begin at once.

Victor Monaghan Co., Greer, S. C., division of J. P. Stevens & Co., Inc., has finished construction of the Greer-plant community building.

Knitting Mills

Burlington Mills Hosiery Co. of Canada Ltd. is operating its new circular and full-fashioned hosiery plant in Lachine, Que. The plant, which is in a recently completed modern one-story structure, has 100 Scott & Williams circular machines, most of them 400-needle, for the production of seamless 15-den. nylon hosiery. New equipment includes 16 Reading full-fashioned machines for production of 60-, 51-, and 45-gauge stockings. The company is a wholly owned subsidiary of Burlington Mills Corp., Greensboro, N. V., and has been operating in Canada for more than five years.

Campbell Hosiery Mills, Chattanooga, Tenn., has received a $150,000 loan from the Reconstruction Finance Corp. for additional equipment and working capital.

Dorchester Fabrics, Inc., Summerville, S. C., has been purchased by Longleaf Mills, Inc., Matthews, N. C. No change will be made in the management. The company will sell its entire production of knitted cloth through Summerville Fabrics, Inc., a newly organized New York concern.

A. R. Headen Hosiery Mills, Hickory, N. C., has made known that its building has been purchased by Mr. and Mrs. E. P. Rhyne, Sr., of Hickory, N. C. The new owners plan to remodel the building for occupancy by Shuford Hosiery Mill and Rhyne Hosiery Mill.

Holdenville, Okla.—B. H. Todd & Sons, Ada, Okla., was awarded a contract to build a $279,887 nylon-tricot lingerie plant to be operated by Seamprufe, Inc. The building, which is being financed by the city of Holdenville, will be leased to the lingerie manufacturing firm. The structure will be one-story, 80x500 ft. Equipment installation will represent a reported investment of an additional $400,000. Harold Flood, Ardmore, Okla., is the architect.

Interwoven Stocking Co., Martinsburg, W. Va., will install new smoke-abatement equipment, in addition to similar units costing $40,000 that were installed during the past year. New Bailey meter controls, which show the degree of efficiency with which boilers are operating, have been installed on all boilers in the plant.

Knit-Rite Mills, a newly organized firm at Cordele, Ga., will soon move into its new building. The company manufactures women's full-fashioned nylon hosiery in the gray. It is now housed in a leased building.

Ladd Hosiery Mills, Inc., Shillington, Pa., has purchased 34 full-fashioned knitting machines from Howard Hosiery Co., Sinking Spring, Pa., and will resume production in the Howard plant. The company has taken a short-term lease on the building from William R. Friedman Co., New York, N. Y., owners.

Oakbrook Hosiery Mills, Reading, Pa., will install new machinery shortly.

Pasolds (Canada) Ltd., a new subsidiary of the English firm of Pasolds Ltd., Langley, Bucks, plans to erect a new knitting mill in Dorion, Que., at a total cost of about $500,000 for the

FOR KNITTING OR WEAVING

Insist on

AMERICAN YARNS

AMERICAN DURENE®
As advertised in leading magazines

NATURAL YARNS
Combed Peeler or Sak. 10's-90's Single
Combed Peeler or Sak. 10's-100's Ply

Selling agents for
EFIRD MANUFACTURING COMPANY
Knitting Yarns-Combed 10's-50's-Carded 8's-30's

THREAD DIVISION
LAWRENCEBURG, KENTUCKY

AMERICAN YARN & PROCESSING COMPANY

Mount Holly, North Carolina • **W. H. SUTTENFIELD**, Vice-President and Sales Manager

MOUNT HOLLY, N. C.
Mr. C. E. Wood
Miss E. B. Abernathy
Mr. T. J. Davis

CHATTANOOGA, TENN.
Mr. H. W. Davenport
628 James Bldg.

PHILADELPHIA, PA.
Mr. Wm. Montgomery
3701 N. Broad St.

CHICAGO, ILL.
Wood & Hutchinson
222 W. Adams St.

NEW YORK, N. Y.
Empire State Bldg.
Room 2906

PROVIDENCE, R. I.
Mr. L. T. Howick
527 Industrial Trust Bldg.

HIGH POINT, N. C. Mr. E. J. Holbrook

GASTONIA, N. C. Mr. T. C. Smotherman

Made with the precision of fine Swiss Watches

DURA

SAFETY TUBES

For LONGER LIFE

Ernest A. Feustel, Inc.

STATE HIGHWAY No.17 LODI, NEW JERSEY

TC
TENNESSEE CORPORATION
SULPHUR-DIOXIDE
HIGHEST QUALITY
SO_2

The chemical with so many uses, Tennessee Liquid Sulphur Dioxide is now available in Cylinders, Ton Drums, Truck Tanks and Tank Cars. The Tennessee Corporation, producers of highest quality Sulphur Dioxide, is located in the textile producing area, assuring closer contact, faster and more efficient service.

Let us consult with you on the many uses of Sulphur Dioxide. Perhaps Sulphur Dioxide can solve some of your problems . . . 'phone, wire or write Tennessee Corporation, Grant Building, Atlanta, Georgia.

TENNESSEE TC CORPORATION
619 Grant Building. Atlanta, Georgia

Only the lap...
ROLLS ON BALLS

ENGINEERED TESTED

- No Drag
- Better Laps
- Long Life

U. S. Pat. No. 2584457

Quick Service

A Guaranteed Lap Pin—with a seamless lap tube (with lap) rolling on sealed bearings. Non-rotating, non-clogging shaft. More uniform, squared-end, easier-to-unwind, laps. PRECISION designed; Now, redesigned, with service in mind. Order from stock.

LIFETIME SEALED
Precision
BALL BEARING
LAP PINS

Engineers : Manufacturers — Cams : Bearings : Gears : Chain Drives
DIVISION OF TURNER MANUFACTURING CO.
PRECISION
GEAR AND MACHINE CO.
Ph. 4-6857 2001 North Tryon St, Charlotte, N.C.
THE SOUTH'S LARGEST MANUFACTURER OF GEARS AND CHAIN DRIVES

News About **MILLS** (Continued)

building, machinery, and equipment. The plant will be one-story, of brick and concrete block construction, 196x153 ft. in size. Wood & Langston, Montreal, is the architect, and J. L. E. Price & Co. Ltd., also of Montreal, is the contractor. The company, which will have dyeing and finishing facilities, will make Interlock T-shirts, underwear, and pajamas. Production is expected to begin by August.

Pulliam Hosiery Mill, King, N. C., which in the past has been doing only finishing, will hereafter make hosiery from "start to finish." Knitting and looping machines have been installed.

R. & S. Hosiery Co. has been organized at Hendersonville, N. C., by Harry Rogers, secretary of Rogers Hosiery Mill, Inc., Hendersonville, and Cletus Sitton. Four full-fashioned machines have been installed in the new plant with a weekly capacity of 600 doz. pr. of women's hose. Two additional 51-gauge machines are being installed. When completed, the company will have a capacity of 600 doz. pr. of 51-gauge and 200 doz. pr. of 66-gauge stockings per week. The firm has purchased the building it now occupies, plus an additional tract of 36 acres as a site for a contemplated finishing plant.

Skyland Textile Co., North Wilkesboro, N. C., has completed a new addition at the rear of the building, containing 1,000 sq. ft. of floor space to be used for shipping and receiving. The plant manufactures children's anklets.

Dyeing and Finishing Plants

Kelpie Dye Works Ltd., Verdun, Que., has completed an expansion and modernization program. The building is one-story, containing 15,000 sq. ft. Machinery installed includes two Pegg Pulsator stainless-steel skein-dyeing machines; Tolhurst extractors of 250 lb. capacity each; and a continuous drying system equipped with two Bailey 250-lb. capacity dryers.

Mount Hope Finishing Co., Inc., has begun operations at Camp Butner, near Durham, N. C.

Scola Piece Dyeing & Finishing Works, Hawthorne, N. J., has been purchased from Frank Scola by a group of its executives. It will continue business under the name of Scola Dye Works, Inc. Anthony Vars, head dyer, is president of the new firm; Charles Freid is first vice president; Louis Lucibello, assistant head dyer, is second vice president; Sidney Sargeant, treasurer and general manager, continues as general manager; Mrs. Eleanor Veenstra is secretary. Mr. Scola will continue with the new organization in a technical and advisory capacity.

Union Bleachery, Greenville, S. C., has been purchased by Cone Mills Corp., Greensboro, N. C., from Aspinook Corp., Jewett City, Conn. The plant has been extensively modernized during the last three years. Its acquisition will enable Cone to coordinate better its finishing operations. No change in management is planned. The purchase price was not disclosed.

Miscellaneous

Edwin H. Fitler Co., Philadelphia, Pa., is asking bids for erection of a proposed new mill at New Orleans, La., to be L-shaped, measuring 264x425 ft. and 176x200 ft. Cost is reported to be about $1,000,000 with equipment. Charles T. Main, Inc., Boston, Mass., is the architect and engineer for the project.

Industrial Tecnica Mexicana, S. A., Atzcapozalco, Mexico, has plans under way for a one-story mill for production of metallic cloth. Estimated cost is $300,000, including equipment.

Ludlow Mfg. & Sales Co., Ludlow, Mass., plans to establish a $700,000 jute-processing plant at Indianola, Miss., under the Blance "Agriculture-with-Industry" Law.

Dependable
Dyehouse
Equipment

STYLE 27D

LANE
Canvas Trucks

So smooth—so light—so long lived
Duck impregnated with highly
mildew-resistant formula

Write for Catalog No. 1 W.

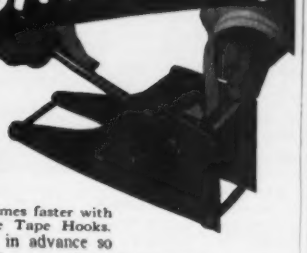
W. T. LANE & BROS., Inc.
Manufacturers

Poughkeepsie, N. Y.

---

10 TIMES FASTER THAN STITCHING!

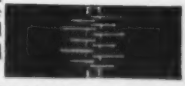
SPINDLE TAPE LACING EQUIPMENT



Lace spindle tapes 10 times faster with Clipper No. 25 Spindle Tape Hooks. Tapes can be prepared in advance so frame is shut down only long enough to place new tape on the pulleys and join ends with connecting pin. Tapes run true—last longer—run smoother—require less tension—VIBRATION IS ELIMINATED

CONDENSER TAPE LACING EQUIPMENT

Lace condenser tapes with Clipper No. 25 Condenser Tape Hooks. Clipper laced tapes, prepared in advance, can be installed in a fraction of the time required for endless tapes. Tape may be purchased in the roll at considerable saving.

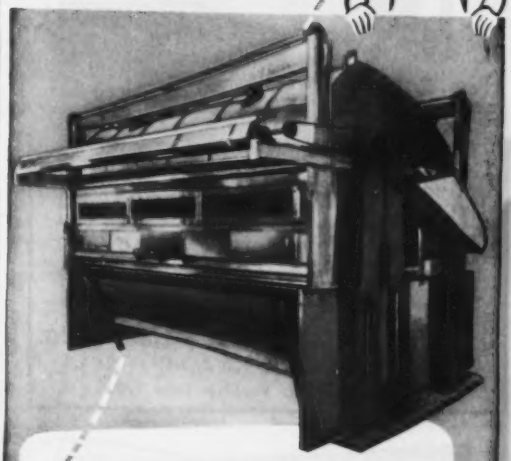


CLIPPER BELT LACER COMPANY, GRAND RAPIDS 2, MICHIGAN

Clipper BELT LACING EQUIPMENT UL

---

3 Features designed for LOW COST DYEING



❶ ***This Dyebox is Fully Enclosed*** *— to keep heat and moisture where they belong, in the box; to save fuel, steam, water and dyestuffs; . . . to end dyehouse fog; to increase production per man hour; to give you better work.*

❷ ***This Dyebox is Stainless Steel*** *. . . to clean in seconds with a quick rinse; . . . to eliminate boil outs; . . . to end discoloration of fabric; . . . to change from dark to light runs in a few seconds; . . . to give you more runs per day at lower cost.*

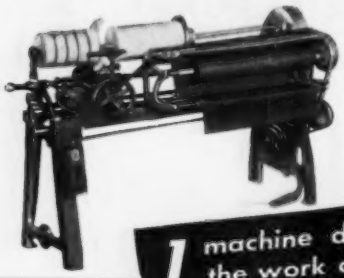
❸ ***This Dyebox is Blickman Built*** *. . . to be as accessible as an open box with none of the disadvantages; . . . to give dyers every design feature for speedier loading, heating, lacing, unloading and changeover; . . . to assure trouble free operation for many years.*

Write for bulletin 7034

S. BLICKMAN, INC. 404 GREGORY AVE. WEEHAWKEN, N. J.

Blickman Built
STAINLESS STEEL TEXTILE EQUIPMENT
Dye Boxes, Linings, Cylinders, Dry Cans, Hoods, Tanks

UTICA Combination Winding and Cutting Machine



1 machine does the work of 2

THIS fast-producer has all the advantages of two machines, but uses the floor space of just one. Cuts light, medium, or heavy weight, both straight and bias fabrics. Cutter and Winder can be run at the same time. Rigidly constructed for long, trouble-free operation. Has measuring scale for cutting accurate rolls. It's safe—knife, grinding wheel, all gears and sprockets are well-guarded. Equipped with Veeder Root yardage counter. Made in 40, 45, and 55 inch width machines. Make your own bindings—as you need them—from the same material as your product—at lower cost. Write today.

See this machine on display at Utica's Booths 14 and 15 Knitting & Allied Crafts Exposition.

UTICA NOVELTY AND MILL SPECIALTY CO.
2145 DWYER AVE., UTICA 2, NEW YORK
Builders of Textile Machines Since 1903

STEAM

FOR HEAT OR PROCESS

A complete steam plant backed by undivided responsibility • Shipped completely assembled • More than 80% thermal efficiency guaranteed • 4-pass design provides 5 sq. ft. of heating surface per b.h.p. • Built-in induced draft eliminates need of expensive chimney • Simple installation • Clean, quiet operation • Heavy-duty construction assures long-lived dependability

Superior Steam Generators are manufactured in 18 sizes from 20 to 600 b.h.p. for pressures up to 250 p.s.i. or for hot water heating.

For complete details, write for Catalog 318

SUPERIOR COMBUSTION INDUSTRIES, Inc.
Factory: Emmaus, Pa.
Exec. Offices: Times Bldg., Times Sq., New York N. Y.

SUPERIOR STEAM GENERATORS

NEWS ABOUT Men

John Adan has been made assistant superintendent at Atlantic Mills of A. D. Juilliard & Co., Inc., Scottville, N. Y.

John C. Archer has been elected vice president of Munsingwear, Inc., Minneapolis, Minn., and general manager of the firm's women's hosiery division. He has been with the firm for 10 years.

John G. Bannister has been made vice president in charge of manufacturing for National Automotive Fibers, Inc., Detroit, Mich. He was formerly Oakland, Calif., division manager for the company.

Frank W. Bastow has retired as vice president and general manager of Cascade Woolen Mill, Oakland, Me. **Frank W. Bastow, Jr.**, succeeds him as general manager and wool buyer.

Norman Binns, superintendent of scouring, carding, and combing at Ayer Mills of American Woolen Co., Lawrence, Mass., has been transferred to the company's Wood Worsted Mills in Lawrence.

W. L. Blanchet has been appointed assistant general manager of Verney Corp. of Canada Ltd., Granby, Que. He was formerly assistant to **L. N. Thompson**, vice president and general manager at the head office of the company in Montreal.

Cyril Boden has become superintendent of the worsted yarn department of Holyoke Fabrics, Inc., Chicopee, Mass.

W. H. Bollin has been elected vice president and **Lawrence G. Reid** assistant secretary of Washington Mills Co., Winston-Salem, N. C. Mr. Bollin has been with the company since 1914, most recently as general superintendent of the company's plant at Mayodan, N. C.

George E. Brigham, who has been manager of the Felters Co. plant at Johnson City, N. Y., for the past 28 years, has been appointed consultant on general production problems. He has been succeeded as plant manager by **Paul E. Waltz**, former plant superintendent.

HARRY C. TEMPLETON has been appointed vice president in charge of all production and has been made assistant to the president of Botany Mills, Inc., Passaic, N. J. He had been general superintendent of the company for the past eight years.

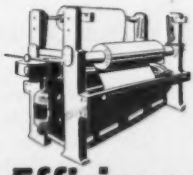
Emil Broukie has become foreman of dyeing for Cheney Bros., Manchester, Conn. **F. McNeice** has resigned as a dyer. **W. J. Malbeuf** has become foreman of quilling.

Thomas Bruce has resigned as overseer of finishing at Morschner Dye Works, Newton Upper Falls, Mass., to become finisher at Dorr Woolen Co., Guild, N. H.

Bernard Bulger has become overseer of dyeing for Orr Felt & Blanket Co., Piqua, Ohio, succeeding **J. L. Walsh.**

James N. Busher, resident manager of Ayer Mills of American Woolen Co., Lawrence, Mass., has been transferred to the company's National & Providence Mills, Providence, R. I., as acting resident manager. **W. G. Hamilton**, former resident manager at National & Providence Mills, has been transferred to Manton Mills of the same company, Manton, R. I., as resident manager.

Fast, Safe Way to Keep Looms at Peak Efficiency



AN ounce of preventive maintenance *now* means no let-down of loom efficiency *later.*

You can simplify periodic overhaul of your looms, knitting machines, *all* heavy equipment with fast-working Oakite Composition No. 99. Simply make up a solution of one part O. C. 99 to twenty parts water. Apply with saturated rag. Let soak for five minutes, then wipe dry.

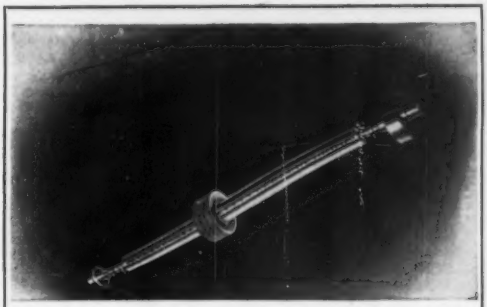
Water-mixed Oakite Composition No. 99 eliminates fire risk. It's easy on the hands. Pleasing pine odor makes it pleasant to use. For complete details, demonstration, contact your local Oakite Technical Service Representative or write Oakite Products, Inc., 42 Rector Street, New York 6, N. Y.

SPECIALIZED INDUSTRIAL CLEANING

OAKITE

MATERIALS · METHODS · SERVICE

Technical Service Representatives in Principal Cities of U.S. & Canada



LENGTHEN THE LIFE OF YOUR CARD GRINDERS

Roy service engineers—card grinding specialists—are always at your service. They will go to your plant to work out your card grinding problems, check your machinery, give you constructive information on grinding bare cylinders or card wire.

Maintenance is top importance now.

B. S. ROY & SON COMPANY

Established 1868

WORCESTER, MASS. — CHARLOTTE, N. C.

Sales Engineers in the South:

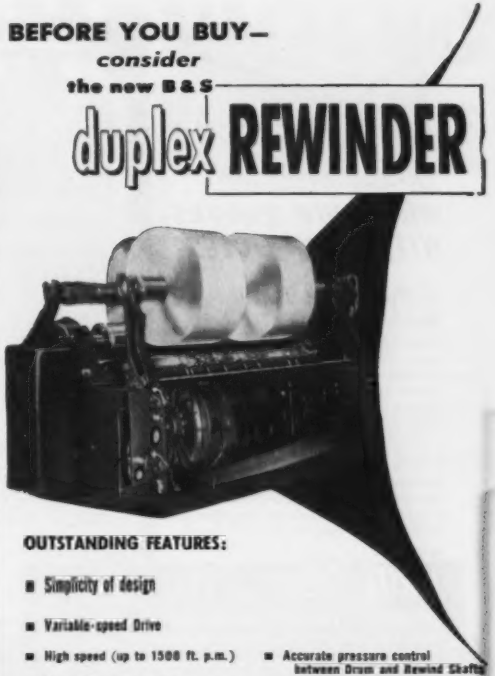
Charles E. Hendrick—L. P. Bell—W. F. Crowder
Office and Plant, 1623 North Tryon Street, Route 29, Charlotte, N. C.—Tel. 5-3845

BEFORE YOU BUY—

consider

the new B & S

duplex REWINDER



OUTSTANDING FEATURES:

- Simplicity of design
- Variable-speed Drive
- High speed (up to 1500 ft. p.m.)
- Compact—saves space
- Vibrationless
- Hydraulically driven differential Rewind Shafts
- Air-Operated Slitters for strips as narrow as ⅛ inch
- Accurate pressure control between Drum and Rewind Shafts
- All hydraulic and air Piping enclosed in Frame
- All Controls easily accessible
- Ease of operation and maintenance
- Efficient and economical

The new B & S #15 Duplex Rewinder is powered by a Louis Allis Eddy Current Type Variable-speed Drive. A variable volume pump driven by an A. C. motor supplies power to the rewind shafts, and the winder is powered by the Eddy Clutch. By placing the entire drive beneath the machine, B & S designers have saved valuable floor space.

Accurate pressure control and precision winding are achieved by pneumatic cylinders for raising and lowering the rewind arms. For full center winding rewind shafts can be locked in "out" position.

To eliminate all possible vibration, the B & S Duplex Rewinder is mounted on heavy cast-iron bedplate. Fully enclosed piping and easily accessible controls assure smoothness and efficiency in operation, as well as ease and economy in upkeep.

For further details write to The Bagley & Sewall Company, 500 Fifth Avenue, New York 18, N. Y.

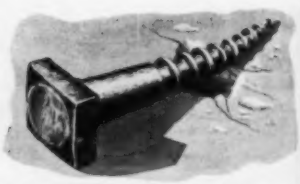
BAGLEY & SEWALL

WATERTOWN, NEW YORK

designers and builders of

QUALITY MACHINERY SINCE 1853

500 FIFTH AVE., NEW YORK 18, N. Y.

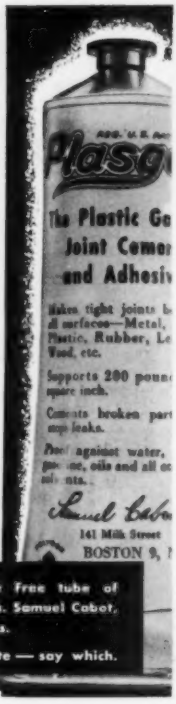


WHY RUIN FLOORS WITH BOLT HOLES?

Use Plasgon — the ideal loom pad adhesive!

Modern mills anchor their loom pads with Plasgon because *it stays flexible.* Plasgon absorbs constant vibration and shocks *without* cracking or losing its adhesive power.

BUT — when you want to change looms, it's easy when pads are fastened with Plasgon. Just soak alcohol on the loom pad and it comes free. There's no damage to mill floors when you use Plasgon.



WRITE TODAY for a large Free tube of Plasgon . . . enough for several looms. Samuel Cabot, Inc., 425 Oliver Bldg., Boston 9, Mass.

Plasgon comes in both black or white — say which.

Clean...Dry...*Slip-Safe* Floors IN JUST 90 SECONDS!

Only HILD has the Shower-feed Brush

Now dirty, slippery factory floors can be scrubbed during working hours...*without interrupting work routines for more than 90 seconds!* HILD Shower-feed Scrubbing speedily loosens stubborn grease and slippery oil accumulations. The HILD Vacuum then *instantly* and *completely* suctions up dirty scrub-soap solution. Floors are left clean, dry and *slip-safe*...without rinsing or mopping. HILD Equipment is designed to reach the danger spots under and around machines.

Write today for FREE 24 PAGE BOOK!

HILD FLOOR MACHINE COMPANY
148 W. Washington Blvd., Dept. TW-4, Chicago 6, ILL.

1927-1952 HILD Systems MAINTENANCE EQUIPMENT & SUPPLIES OUR 25TH YEAR

News About **MEN** (Continued)

Edwin A. Buthmann, superintendent of dyeing at Ayer Mills of American Woolen Co., Lawrence, Mass., has been transferred to Wood Mills of the same company.

Philip Byfield has recently joined Farnsworth Mills of Deering, Milliken & Co., Lisbon Falls, Me. He was formerly with the production engineering department of American Woolen Co., with a roving commission for their mills in Maine.

Robert Chapman, Jr., has been added to the board of directors of Riverdale Mills, Enoree, S. C. His father is vice president and assistant treasurer of the company.

Louis Condy has resigned as manager of the Chicago sales office of American Woolen Co. **Samuel W. Schwartz** has been appointed his successor.

Joseph P. Conlin has been appointed director of industrial relations of American Woolen Co. **Jack Barry** has been named director of public relations. Both men will make their offices in Lawrence, Mass.

George L. Coxhead, Burlington, N. C., has been transferred from Piedmont Preparatory Plant of Burlington Mills Corp., where has was supervisor of the warping department, to the company's Galax Weaving Mills at Galax, Va., as assistant to **H. C. Woodall, Jr.**, superintendent.

Raymond Cratty, formerly superintendent of carding and spinning at Hockanum Mills, Rockville, Conn., is now with Aldon Spinning Mills Corp., Talcottville, Conn., as colorist.

Arthur H. Dailey has been appointed assistant traffic manager of West Point Mfg. Co., West Point, Ga., succeeding the late **Robert Cole.**

J. R. Davison, general manager of Royston Mills, Inc., Royston, Ga., has been elected vice president.

Milton E. Davis has been named manager of the Philadelphia, Pa., plant of Franklin Process Co.

E. H. de Vaudreuil has resigned as overseer of dyeing for Brooklyn Yarn Co., Brooklyn, N. Y., to accept a similar position with National Worsted Mills, Inc., Jamestown, N. Y.

Herbert Finley, formerly with Banner Yarn Dyeing Corp., Brooklyn, N. Y., has become overseer of dyeing for Glasgo Ltd., Philadelphia, Pa.

Leo Gaidis has become overseer of dyeing for Marum Knitting Mills, Lawrence, Mass.

Fred Gleason, master mechanic at Arden Mills of American Woolen Co., Fitchburg, Mass., has been transferred to the company's new plant at Raleigh, N. C.

I. B. Grainger, Jr., has recently been promoted to plant manager of Full-Knit Hosiery Mills, Inc., Burlington, N. C.

Walter W. Grobner is leaving Botany Mills, Inc., Passaic, N. J., to join the fabric development section of the textile Fibers Dept. of E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

John H. Halford, Jr., has resigned from Forstmann Woolen Co., Passaic, N. J., to become vice president and sales manager of Carvill Combing Co., Moosup, Conn. In addition, he will also be executive assistant to the president of Brunswick Worsted Mills, Inc., Moosup, Conn.

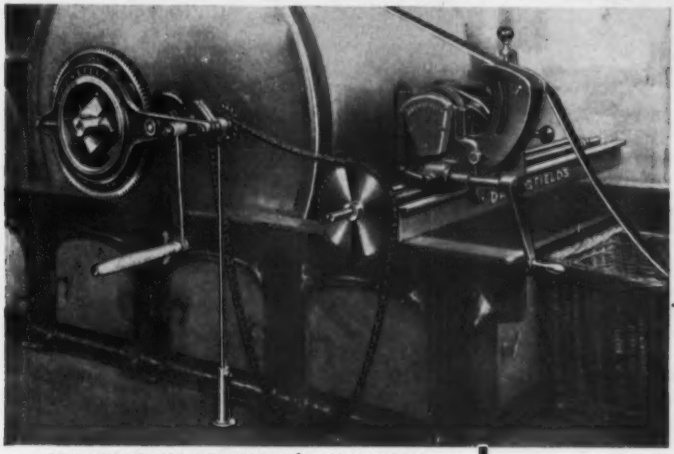
C. M. Harding has been named executive vice president of Harding Carpets Ltd., Brantford, Ont. **Douglas Keefe** has been named vice president in charge of manufacturing. **C. V. Banks** has become vice president in charge of sales and A. R. Wynn, secretary-treasurer.

Karl H. Helfrich has been named vice president and secretary of Forstmann Woolen Co., Passaic, N. J. **Robert R. Hetzler** was appointed assistant to the president and treasurer.

Armand Henault has become overseer of finishing at Vermont Textiles, Inc., North Montpelier, Vt.

R. Carter Henry has been promoted to general manager of Jonesville Mills, Jonesville, S. C., and Piedmont Mfg. Co.,

Perfect CARD MOUNTING



for
COTTON
WOOLLEN
WORSTED
WASTE
ASBESTOS
CARDS

SOLE AGENTS FOR DRONSFIELD'S MACHINERY:—
JOHN HETHERINGTON & SONS INC.
N. MARIETTA ST. EXT., GASTONIA, N.C.

Card Mounting Machine Nº 220 with Double Purchase Jack *for* clothing Card Cylinders and Doffers

DRONSFIELD BROTHERS LTD · OLDHAM · ENGLAND

PENICK & FORD, LTD.
INCORPORATED
CORN STARCHES, DEXTRINES, GUMS, CORN SUGARS & SYRUPS
NEW YORK, N. Y. - - - - CEDAR RAPIDS, IOWA
SOUTHERN OFFICES: ATLANTA, GA. - - - - SPARTANBURG, S. C.

John:
Penick and Ford's
Starches and Gums for
sizing Corduroy warps
insure dependable
weaving and maximum
cutting efficiency.
Let's try the type they
recommend. Jim

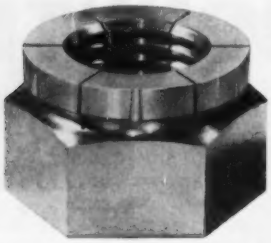
Perfect Seams

No. 1 Hand Power Portable Railway Sewing Machine is built to take any width of cloth. Can be fitted with Heavy Duty Gear type or 4-A single needle, Oscillating Looper Sewing Head. For Cottons, Woolens, Knit Goods, Silks, Cheesecloth and Lace Materials.

This machine sews the two edges together perfectly straight and the selvages come out even. The seam can be sewed very near the edge and is easily removable.

DINSMORE MFG. CO.

No. 1 SALEM, MASS.



...THEY WON'T WORK LOOSE

FLEXLOC Self-Locking Nuts stay locked, no matter how severe the vibration. They serve equally well as stop nuts, because they lock in any position on a threaded member. FLEXLOC Locknuts are one piece, all metal *period!* Write for samples. Just let us know what size you need. STANDARD PRESSED STEEL CO., JENKINTOWN 35, PENNSYLVANIA.

FLEXLOC LOCKNUT DIVISION

SPS JENKINTOWN PENNSYLVANIA

Stainless Steel
BEAKERS & DYE POTS
FOR ALL TEXTILE & LABORATORY USE . . .

Leading companies throughout the industry are our satisfied customers

AMERICAN METAL SPINNING & STAMPING CO.
130 East 13 St.
New York 3, N. Y.

FREE samples of SHUTTLE FURS

Manufactured from imported New Zealand, Brown and Grey Opossum Hides. We make any width and grade of shuttle fur to be used in all types of weaving. Also whole Opossum Hides and Muskrat if desired. We have whole Sheepkin hides, or cut in strips or pads. Strip fur cut to specifications and boxed in 50 foot rolls.

Your inquiries and business will be greatly appreciated.

MORRIS FUR COMPANY
P.O. Box 816 Telephone 6-5934 Burlington, N. C.

News About MEN

(Continued)

Piedmont, S. C., both divisions of J. P. Stevens & Co., Inc.

Francis D. Herbert has resigned as overseer of carding for Glen Woolen Mills, Inc., Norwich, Conn. **J. K. Martin** has succeeded him.

W. G. Hicks has been named president and general manager of Belding-Corticelli Ltd., Montreal, Que., succeeding **W. P. MacDougall**, who has been appointed chairman of the board. **L. R. Ramsey**, treasurer, is now assistant manager and will continue to serve as treasurer.

David Hillier has been named dyer at the plant of Brinton-Peterboro Carpet Co. Ltd., Peterborough, Ont. He was formerly dyer at the worsted plant of Dominion Woolen & Worsteds Ltd., Peterborough.

J. H. Hodges has become overseer of spinning for West Unity Woolen Mills, West Unity, Ohio.

E. A. Hopkins has become overseer of carding and spinning at Verney Corp., Manchester, N. H.

Fred Howard has been named quality-control supervisor of the Monarch Knitting Co., Ltd. plant at St. Catharines, Ont. He was formerly on the staff of Celtic Knitting Co. Ltd., Montreal.

Page Irwin, overseer of planning in Mills Mill of Reeves Bros., Woodruff, S. C., has been appointed assistant purchasing agent for the company.

Walter Jackson has resigned as superintendent of Brown Mills of American Woolen Co., Dover-Foxcroft, Me.

Claude W. Joiner, who has been manager of the cotton division of Standard-Coosa-Thatcher Co., Chattanooga, Tenn., has been promoted to the new position of vice president in charge of the cotton division.

David Judson, a vice president of Mock, Judson, Voehringer Co., Inc., Greensboro, N. C., has been named a vice president of Mojud Hosiery Co. in the same organization and has been transferred to that company's New York offices.

Otto Kuhn, treasurer of Botany Mills, Passaic, N. J., for the past 20 years, has retired from that office. He will continue as a consultant and as a member of the board and of the executive committee, but has retired as chairman of the latter group.

William Lidstone has become overseer of sewing at Puritan Mills of American Woolen Co., Plymouth, Mass., succeeding **J. LeRoie.**

Merle Littlefield has succeeded **Bernard Bulger** as overseer of dyeing at Dorr Woolen Co., Newport, N. H. Mr. Littlefield was formerly with Harris Emery Co., Penacook, N. H.

James A. Lybrand, Jr., and **Jesse A. White**, both of Greensboro, N. C., have been named vice presidents of J. P. Stevens & Co., Inc. Mr. Lybrand has been assistant director of purchases for Stevens Co. since 1946, while Mr. White, a veteran of 20 years service with the organization, has been assistant general manager of Carter Fabrics Operating Group, which manages nine divisions in the Stevens organization.

B. W. McKenzie has been appointed plant superintendent of the new Textron Southern, Inc., mill at Honea Path, S. C.

Arthur F. McLean has become superintendent of Glenlyon Print Works, Phillipsdale, R. I. **Elliot Broadbent** has been named manager.

Thomas F. Malloy has resigned as overseer of dyeing at the Dublin finishing plant of Burlington Mills Corp. at Dublin, Va.

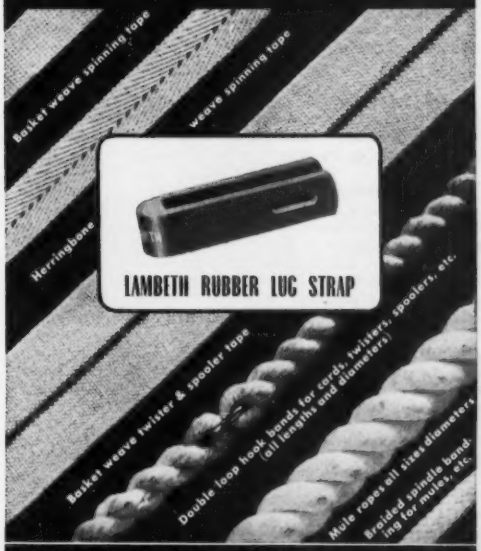
Joseph E. Mee is now general manager of John Alden Woolen Mills, Worcester, Mass. **Louis Martinez** has been named superintendent.

Joseph F. Merten has resigned as manager of quality control of rayon fabric of Deering, Milliken & Co., New York, N. Y.

John J. O'Connell was recently named vice president in charge of finance of Berkshire Knitting Mills, Reading, Pa.

H. P. Pearson, superintendent of Baltic and Mascoma

LAMBETH PRODUCTS
FOR SPINNING, TWISTING, SPOOLING, WEAVING


Basket weave spinning tape
weave spinning tape
Herringbone
LAMBETH RUBBER LUG STRAP
Basket weave twister & spooler tape
Double loop hook bands for cards, twisters, spoolers, etc. (all lengths and diameters)
Braided spindle banding for mules, etc.
Mule ropes all sizes diameters

LAMBETH ROPE CORPORATION
Plants at New Bedford, Mass. and Kings Mountain, N. C.

MEET Your PARTNERS in PRODUCTION

The American Crayon Company
Sandusky, Ohio New York

DANA WARP MILLS
Westbrook, Maine

Cotton yarns, single and ply
Cotton warps, single and ply
Colored yarns and warps
Spun rayon—yarns and warps

Spinners of Fine Woolen, Merino & Specialty Yarns

The ALDON SPINNING MILLS Corp.
TALCOTTVILLE, CONN.
Represented by
Richard C. O'Brien
Boston • New York • Philadelphia • Chicago

ROME SOAP MFG. CO.

WRITE US FOR SAMPLES AND QUOTATIONS

MANUFACTURERS OF
Textile, Laundry
and
Special Soaps
ROME, N. Y.

WARP MERCERIZING
SKEIN, TUBE, CONE and WARP DYEING

Dyers of Cotton, Rayon and Novelty yarns for over 38 years, catering to the Upholstery and Pile Fabric Trade

CALEDONIAN DYE WORKS
EMERALD AND WESTMORELAND STREETS
PHILADELPHIA 34, PA. RE 9-2322

ALLEN
Adjustable Wooden Loom Beam Heads

— your present beams instantly adjusted to variable warp widths.
— available up to 32" diameter, permitting more yarn on present beams.
— one-piece construction
— eliminates causes of uneven warps.
— patented ply construction of hard wood — resilient, practically unbreakable.

REQUEST NEW CATALOG

ALLEN BEAM COMPANY
High Speed Warper Beams
Warper Beam Heads
Loom Beams
Adjustable Loom Beam Heads

General Offices — 151 River Road
New Bedford, Mass.

Representatives in all Textile Localities and all Principal Countries of the World.

"GOOD WARPS ARE MADE ON GOOD BEAMS"

INDUSTRIAL *Engineers*
SPECIALIZING IN TEXTILES FOR OVER ONE-THIRD OF A CENTURY

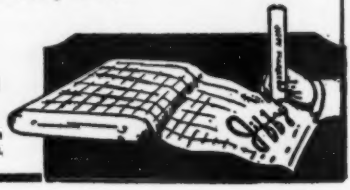
PAYROLL CONTROLS COST SYSTEMS
SPECIAL REPORTS WORK LOAD STUDIES
COST REDUCTION REPORTS

RALPH E. LOPER CO.
GREENVILLE, S. C. FALL RIVER, MASS.

JIFFY TEXTILE MARKER

For use on rayon, cotton and woolen material. Dye-resistant and boil-proof, permanent, inexpensive, quick and easy to use.

For information address
JIFFY TEXTILE MARKER CO.
406 W. School Lane
Philadelphia 44, Pa.



News About MEN

(Continued)

Mills of American Woolen Co., Enfield and Lebanon, N. H., respectively, has been promoted to resident manager of these two plants.

Joseph Polger has been appointed assistant to the president of Diamond Hosiery Mills, Philadelphia, Pa.

James E. Robison, who holds executive positions with two other Textron subsidiaries, has been elected president of Textron Puerto Rico and Textron Mississippi, Inc. **Royal Little** has resigned as president of both subsidiary firms but will continue as board chairman in both cases. **James M. Flack** has resigned as executive vice president of Textron Puerto Rico, to devote full time to affairs of Textron Mississippi, Inc. Mr. Flack will also be in complete charge of company operations at Cordova, Ala., and proposed mills at Meridian and Aberdeen, Miss. **Edwards C. Whitmore**, former executive vice president of Atlantic Parachute Corp., has been elected vice president of Textron Puerto Rico.

J. K. Schwartz, of Union, S. C., president and general manager of Run-Prufe Hosiery Mill, Union, since its organization, has resigned, and has become associated with Katz Food Co., Roanoke, Va. **J. R. Weatherford**, superintendent, has become general manager.

Frank T. Shiverick has been named assistant to the manager of the women's knit division of William Carter Co., Needham Heights, Mass.

Donald E. Skinner has been named a director of Norwich Knitting Co., Norwich, N. Y.

S. Scott Stewart has been elected vice president and general manager of Rose Mills, Inc., Philadelphia, Pa.

Henry W. Stuber has been named general manager of plants of Aragon Baldwin Mills at Whitmire, S. C., and Aragon, Ga. Mr. Whitmire was formerly manager of the Whitmire plant. Other promotions at the Whitmire plant include: **James H. Abrams** to manager; **Fay E. Alexander**, to assistant superintendent; **Charles B. Grant** to general overseer of carding. **R. Carter Henry** has been named general manager of Jonesville Mills, Jonesville, S. C., and Piedmont Mfg. Co., Piedmont, S. C. All companies are units of J. P. Stevens & Co. Inc.

A. D. Turner has been named superintendent of all dyeing at Lanett Bleachery & Dye Works, Lanett, Ala. **Watt Kitchens** has been named assistant. Other promotions include **J. C. Papini**, superintendent of printing; **Lester Carruthers**, assistant; **Hope Turner**, superintendent of corduroy finishing; **Claude Milford**, night superintendent; **Roy Dewberry**, overseer of finishing.

Bernard D. Vener has joined Southern Knitwear Mills, Inc., Charlotte, N. C., as head of the wool knit outerwear operations. Mr. Vener was connected with Commodore Knitting Mills, Inc., Brooklyn, N. Y., for 29 years.

Alden Walls, recently assistant resident manager at Ayer Mills of American Woolen Co., Lawrence, Mass., is now in charge of three Southern plants of Bachmann Uxbridge Worsted Corp. at Macon and Cedartown, Ga., and Statesville, N. C.

James Webb, Greensboro, N. C., **Henry G. Nichols**, New York, N. Y., and **Claude S. Morris** of Salisbury, N. C., have been named vice presidents of Cone Mills Corp., Greensboro, N. C.

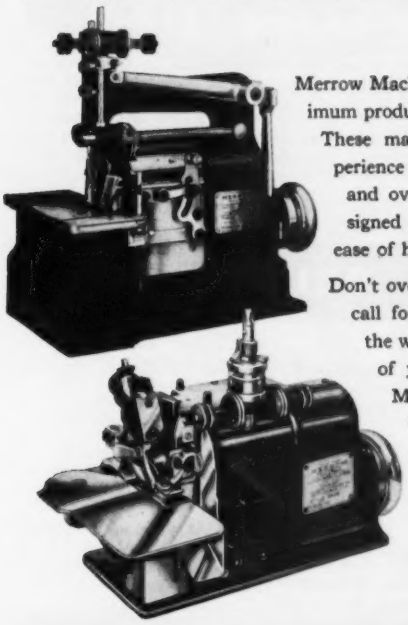
Russell West has become overseer of dyeing at Globe Mills of American Woolen Co., Inc., Utica, N. Y. He succeeds **Harry Richardson**, who has resigned.

Hans Westkott has been named purchasing agent of Berkshire Knitting Mills, Reading, Pa. He replaces **W. Donald Eaches**, who has been transferred to the Berkshire distributing office in San Francisco.

H. I. Wieland, chemist of Ayer Mills of American Woolen Co., Lawrence, Mass., was recently transferred to the main laboratories of the company at No. 1 Mill St., Lawrence, Mass.

B. D. Wilhelm has been promoted to general superintendent of Belvedere Hosiery

Don't overlook Overedging



Merrow Machines for overedging assure maximum production with low maintenance cost. These machines reflect over 60 years' experience in the manufacture of overedging and overseaming machines. They're designed to produce work with speed and ease of handling.

Don't overlook Merrow if your requirements call for overedging. Let us demonstrate the work of these machines on swatches of your own fabrics. Write to The Merrow Machine Co., 2803 Laurel St., Hartford 6, Conn.

Over a century of experience

MERROW

TRADE MARK REG

THE LOYAL T. **IVES** COMPANY EST. 1874

SPRING BEARD KNITTING NEEDLES

For Circular, Full Fashioned, Tricot and Milanese Knitting Frames, also Narrowing, Stand Transfer Points and Welt Hooks for Full Fashioned Machines, Slides, Sinkers, Jacks, Guides or Flat Eyes, Bisp and Milanese Points, Transfer Points or Quills, etc.

Sheet Metal Specialties to Order

NEW BRUNSWICK NEW JERSEY

When You Change Your Address . .

It will help us keep your copies of TEXTILE WORLD coming to you each month if you will promptly advise us of any change of address.

Director of Circulation
TEXTILE WORLD,
330 West 42nd St., New York 18, N. Y.

Please change the address of my Textile World subscription.

Name .....

Old Address .....

New Address .....

New Company Connection .....

New Title or Position .....

Acme Products

for seamless hosiery knitting

Speak for Themselves

Up-to-Date Machines

Needles

Economy Makers

ACME KNITTING MACHINE & NEEDLE CO.

FRANKLIN, N. H.

Control MAXIMUM PRODUCTION
with G. S. HAND TACHOMETERS and SPEED INDICATORS
1% Accuracy for any range from 30 to 100000 RPM or surface speed.
Antimagnetic durable mechanism.
Efficient repair service at moderate charges.
IDEAL FOR MOTORS - SHAFTS - SPINDLES - LOOMS - TURBINES - FOR TEXTILE AND POWER PLANTS
WRITE FOR ILLUSTRATED FOLDER
GEORGE SCHERR CO., INC.
200 F LAFAYETTE ST. • N.Y. 12, N.Y.

CHEMSTEEL CONSTRUCTION COMPANY, INC.
401 Chemsteel Building, Walnut Street, Pittsburgh 32, Pa.
Send data on your Design, Engineering, Material, Construction and Maintenance Facilities for
ACID-ALKALI-PROOF CONSTRUCTION
backed by experience serving major steel, chemical, textile and food industries in erection of
TANKS, FUME DUCTS, DYE FLOORS, ETC.
NAME.....
COMPANY.....
ADDRESS.....
CITY.....ZONE.....STATE.....
(TEAR OUT AND MAIL)

J. E. SIRRINE CO.
GREENVILLE • SOUTH CAROLINA
Engineers
TEXTILE MILLS • RAYON PLANTS • KNITTING MILLS • DYE HOUSES
BLEACHERIES • STEAM UTILIZATION • STEAM POWER PLANTS
WATER • WASTE DISPOSAL • APPRAISALS • PLANS • REPORT

Trucks
Made any size or style wanted. Center and end wheels. Water proofed and chemically resistant finish.
Self-oiling and no grease can drop on the floor. Used for all kinds of fine yarns, wet or dry.
Bottoms finished 13/16". Sides and ends finished 1 1/4", 1 1/2", 1" or 2 1/2", whichever desired. Made from maple, poplar, cypress or fir lumber.
WRITE US TODAY.

FRANK BAILEY
CEDAR BROOK P. O.
CAMDEN CO., NEW JERSEY

Co., Charlotte, N. C. He was formerly assistant superintendent. He succeeds **E. T. Hillson**, who has resigned to enter another business.

Charles C. Wilson, formerly head of the textile-engineering department of West Point Mfg. Co., West Point, Ga., has been appointed assistant director of research, a new position in the division.

Walter J. Wood, Jr., is now overseer of dyeing with Peerless Woolen Co., Cleveland, Tenn. He was previously with Pacific Mills, Boston, Mass.

Watson J. Wood has become general manager of Knitters Ltd., Lindsay, Ont. He was formerly superintendent of the worsted yarn spinning mills of Demetre, Sault & Cires (Can.), St. Johns, Que.

OBITUARY

Deane A. Cabot, chief development engineer of Whitin Machine Works, Whitinsville, Mass.

Lincoln Cromwell, 86, who retired on Jan. 1 as chairman of the board of William Iselin & Co., Inc., New York, N. Y.

W. A. Enloe, 71, president of Lafayette Cotton Mills, Inc., Lafayette, Ga., and of Walker County Hosiery Mill, also of Lafayette.

Richard B. P. Forrest, 56, president of Angus Mills, Inc., Vass, N. C.

Fred Greensmith, former dyer at National Felt Co., Inc., Easthampton, Mass.

Earl E. Groves, 54, treasurer of Groves Thread Co., Inc., Gastonia, N. C.

Wilton M. Holcombe, 51, secretary of Spartan Mills, Spartanburg, S. C.

Harry A. Matthews, 46, general manager of Belvidere Hosiery Mills, Inc., Belvidere, N. J.

Ernest Mayer, overseer of wet finishing at Webster Mills of American Woolen Co., Webster, Mass.

John W. Mettler, 73, founder and president of Interwoven Stocking Co., New Brunswick, N. J. He was a past president of the National Assn. of Hosiery Mfrs. and had served as chairman of the NRA Hosiery Code Authority and of the hosiery-industry committee under the Wage and Hour Law.

Lucian Key Palmer, 61, South Carolina representative of Barreled Sunlight Paint Co., Providence, R. I.

George W. Paxton, 70, retired textile chemist. He had worked for 22 years in the industrial plant of J. P. Stevens & Co., Rock Hill, S. C.

A. G. Peterson, 64, general sales manager of the Eastern Div., Corn Products Refining Co.

Taylor R. Phillips, 41, president and general manager of American Textile Co., Pawtucket, R. I.

William J. Prendergast, 59, vice president and sales manager of William H. Prendergast Mills, Inc., Bridgeton, R. I.

W. G. Reids, 77, retired foreman of Pattinson Woolen Mills, Preston, Ont. He was a former mayor of Preston.

Dudley B. Setzler, 41, representative in Georgia, Alabama, and Tennessee of Dexter Chemical Corp., New York.

Jack Shaffner, 46, superintendent of Arista Mills Co., Winston-Salem, N. C.

Charles E. Tidswell, 75, retired overseer of A. D. Juilliard & Co., Inc., Providence, R. I.

Clifford S. Van Winkle, 74, vice president of Interwoven Stocking Co., New Brunswick, N. J.

Morris Warhaftig, 73, former president of Lynn Textile Mills, Inc., West Warwick, R. I.

James D. Whitaker, 83, New England representative of Boger & Crawford, Philadelphia, Pa., for over 20 years.

A COMPLETE LINE OF V-BELT SHEAVES

FHP SHEAVES

Pressed Steel and Cast Iron, available in a complete range of sizes for 3L, 4L and 5L V-Belts. Also Variable Pitch—single and two groove . . . Bored to size or bushed. Write for Bulletin 294.

"SURE-GRIP" SHEAVES

Wood's "Sure-Grip" Sheaves—with one-piece, flanged hubs split from end-to-end for maximum grip on the shaft—are easy to mount, quick to remove and interchangeable. More sheaves used with this hub construction than any other type...available in A, B, C, D and E grove sections. Send for Catalog 192.

WOOD'S PRODUCTS

SHEAVES • FLAT BELT PULLEYS • HANGERS • PILLOW BLOCKS • COUPLINGS • BEARINGS • COLLARS • "SURE-GRIP" SHEAVES AND PULLEYS • "SURE-GRIP" STANDARD, SUPER AND STEEL CABLE V-BELTS • COMPLETE DRIVES.

T. B. Wood's SONS CO.
CHAMBERSBURG, PA.

Mechanical Power Transmission Manufacturers—Since 1857.

BOSTON, MASS. • NEWARK, N. J. • DALLAS, TEXAS • CLEVELAND, O.

TENTERING and DRYING MACHINERY

For further information see
McGraw-Hill Textile Catalogs

D. R. KENYON & SON
RARITAN, NEW JERSEY

CALDWELL TANKS—

First Choice of the Textile Industry!

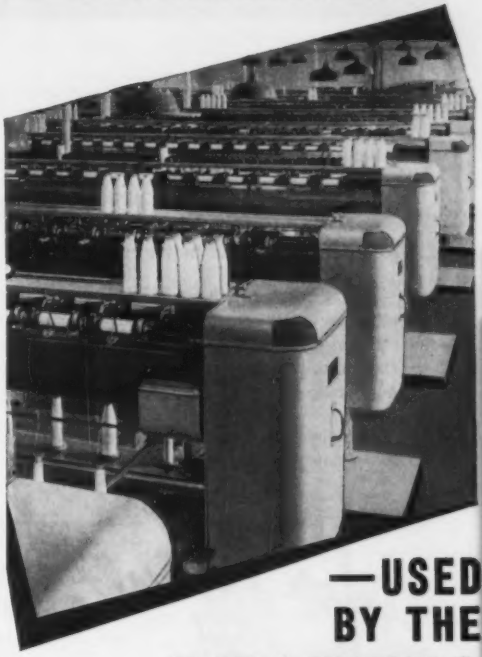
Caldwell offers the industry a complete tank service, including solid Stainless and Stainless-lined wood tanks and tubs, of any shape or size.

If you're thinking of installing or replacing a tank, let our 60 years' experience in building high-grade tanks serve you. *Send for our catalog, today!*

W. E. CALDWELL CO., Inc.
2060 Brook St., Louisville, Ky.

Caldwell TANKS AND TOWERS

MADE BY THE LEADERS



—USED BY THE LEADERS

All over the world the name of Ernest Scragg & Sons Limited is known for leadership in the design and manufacture of Textile Machinery. Because of this, their products are found today in the mills of nearly all the most famous textile makers.

There is a Scragg Machine to meet most modern textile requirements. We are especially proud of our latest types "S.A" and "S.M" Uptwisters. Let us tell you more about them. Write for fuller details to the address below.

MACHINES FOR WINDING, TWISTING, CREPEING, DOUBLING, REELING, REDRAWING AND CONE WINDING SILK, RAYON, NYLON & ALL FINE YARNS

ERNEST SCRAGG & SONS LIMITED

Sunderland Street Works, Macclesfield. Cheshire.
Telephone 2247 Macclesfield.
Cables: Code: A.B.C. 6th Edition.

Illustration by courtesy of George Swindells & Sons Ltd. (Branch of the Fine Spinners and Doublers Ltd.)

Double Barrel Advertising

Advertising men agree – to do a complete advertising job you need the double effect of both Display Advertising and Direct Mail.

Display Advertising keeps your name before the public and builds prestige.

Direct Mail supplements your display advertising. It pin-points your message right to the executive you want to reach – the person who buys or influences the purchases.

More and more companies are constantly increasing their use of Direct Mail because it does a job that no other form of advertising will do.

McGraw-Hill has a special Direct Mail Service that permits the use of McGraw-Hill lists for mailings. Our names give complete coverage in all the industries served by McGraw-Hill publications – gives your message the undivided personal attention of the topnotch executives in the industrial firms. They put you in direct touch with the men who make policy decisions.

Some people have a wrong conception of Direct Mail. There's no hocus-pocus to it– there's no secret formula–nor is there need for an extensive department to plan and execute your mailing program. You don't even need your own mailing lists.

Probably no other organization is as well equipped as McGraw-Hill to solve the complicated problem of list maintenance in industrial personnel. Our lists are compiled from exclusive sources, based on hundreds of thousands of mail questionnaires and the reports of a nationwide field staff, and are maintained on a twenty-four hour basis.

In view of present day difficulties in maintaining your own mailing lists, this efficient personalized service is particularly important in securing the comprehensive market coverage you need and want.

Ask for more detailed information today. You'll be surprised at the low over-all cost and the tested effectiveness of these hand-picked selections.

McGRAW-HILL
PUBLISHING COMPANY, INC.
330 WEST 42nd STREET, NEW YORK 18, N. Y.

CLASSIFIED SEARCHLIGHT SECTION ADVERTISING

EMPLOYMENT • BUSINESS • OPPORTUNITIES • EQUIPMENT—USED or RESALE

UNDISPLAYED RATE:
$1.20 cents per line, minimum—3 lines. To figure advanced payment count 5 average words as a line.
POSITION WANTED AND INDIVIDUAL SELLING OPPORTUNITY undisplayed advertising rate is one-half of above rate, payable in advance.
PROPOSALS, $1.20 a line an insertion.

INFORMATION:
BOX NUMBERS care of publication count as 1 line additional in undisplayed ads.
DISCOUNT of 10% if full payment is made in advance for four consecutive insertions of undisplayed ads (not including proposals).
EQUIPMENT WANTED OR FOR SALE Advertisements acceptable only in Displayed Style.

DISPLAYED RATE:
The advertising rate is $10.40 per inch for all advertising appearing on other than a contract basis. Contract rates quoted on request.
AN ADVERTISING INCH is measured ⅛ inch vertically on one column, 3 columns—30 inches —to a page. T.W.

NEW ADVERTISEMENTS address N. Y. Office, 330 W. 42nd St., N. Y. 36, N. Y. for May issue closing April 18th.

WANTED

Chemical, Textile or Mechanical Engineers With Experience in the Synthetic Fibers Field

Large synthetic fiber manufacturer, located in the South, has openings for up to three men with five to ten years experience in the synthetic fibers field who have a Ph.D. degree or its equivalent.

Openings are responsible, supervisory positions in production and design, with high salaries and excellent opportunities for further advancement.

Apply giving complete details to Department 700

Box P-3712, Textile World
330 W. 42nd St., New York 36, N. Y.

Opportunity for Research Man With Textile Mill Experience

Prominent textile publication has opening in its advertising and sales department for a research man who combines research ability with intimate knowledge of textile mill operations. Apply, giving complete details of past experience, age, draft status and salary requirements to

P-3782, Textile World
330 W. 42nd St., New York 36, N. Y.

SALESMAN—SALES ENGINEER DEMONSTRATOR

Wanted by leading manufacturer of chemical specialties for textile wet processing. Selling experience unnecessary. We pay salary, expenses and commission. This is an outstanding opportunity for a young man who is willing and able to work, and who wants a secure position with a future. All replies kept strictly confidential.

SW-3513, Textile World
330 W. 42 St., New York 36, N. Y.

TEXTILE EDITOR

Must have had knitting-mill production experience and be familiar with warp, circular hosiery, circular underwear and outerwear knitting. Prefer a man who has written articles for publication. Age 25 to 40. Give full details on education, experience, salary, etc. in first letter.

P-3400, Textile World
330 W. 42 St., New York 36, N. Y.

STAPLE FIBRE SALESMAN

for national chemical fibre corp. Opportunity for experienced textile salesman with knowledge of fundamentals of spinning and weaving of staple fibre. To be responsible for market development in the industrial field. Knowledge of, and contacts in, automotive upholstery, drapery, blanket, non-woven fabric, flocking and other non-apparel industries. To age 35. Location NYC headquarters. Some travel. Salary open. Send complete resume including salary desired.

Box TW-1896
221 W. 41 St. New York 36, N. Y.

YOUNG MAN WITH TEXTILE WET PROCESSING EXPERIENCE

A progressive major supplier of textile chemical specialties has an opening for a young college graduate with laboratory, dyeing, or finishing experience. The position involves technical correspondence, product development, etc., with excellent opportunities for advancement.

Applications received in confidence.

P-3814, Textile World
330 W. 42 St., New York 36, N. Y.

FINISHER WANTED—

experienced in resin finishing and nylon setting—permanent position in New York City—give full details in application.

P-3693, Textile World
330 W. 42nd St., New York 36, N. Y.

PROFESSIONAL SERVICES

EATON & BELL

Patent Attorneys

904 Johnston Bldg., Charlotte, N. C.
733 Munsey Bldg., Washington, D. C.

REPLIES (Box No.): Address to office nearest you
NEW YORK: 330 W. 42nd St. (36)
CHICAGO: 520 N. Michigan Ave. (11)
SAN FRANCISCO: 68 Post St. (4)

POSITIONS VACANT

DYER AS Assistant in ribbon dyehouse located York, Penna. Ribbon dyeing experience preferred. New dyehouse, modern equipment. Steady position. Write Century Ribbon Mills, Inc., 1071 Sixth Av., New York City Stating age, experience, salary expected.

WANTED: A Good Boss Finisher who is able to finish on all kinds of fabrics made in a Plush Mill. P-3651, Textile World.

RIBBON MILL Superintendent for large operation. Replies kept confidential. P-3774, Textile World.

WANTED—GRADUATE Textile chemist, with practical experience in synthetic fibers for development work on finishes and other Plant problems. Connecticut plant. Write P-3563, Textile World.

WANTED: TIME Study Engineer. Thoroughly experienced in all phases of incentives and methods improvement. Textile background preferred. Philadelphia area. Top flight employer. Send resume of experience. P-3815, Textile World.

(Continued on the following page)

MEN WANTED

POSITIONS OPEN

We can place: **MANAGERS,** supts., overseers and fixers in tricot mills; supt. sweater mill; supts., asst. supts., overseers and fixers experienced on cotton tufted carpets; supt. silk throwing; supts. and asst. supts. worsted yarn mills; hosiery supt.; woolen supt. large plant, stock dyed and piece dyed fabrics; asst. supt. pile fab. mill; factory supt. (South) knit. briefs, athletic and Tee-shirts; designers cotton and rayon fabrics, including jacquards; carpet designer.

OVERSEERS FOR FOLLOWING DEPTS.: woolen frame and mule spin.; cot. slashing (foreign); piece goods dye., box and jig work, 2nd shift; top dyeing; napping, brushing, cotton and rayon finishing.

SECOND HANDS FOR FOLLOWING DEPTS.: rayon slash., wind. and warp.; woolen carding; dyeing sweaters nylon and rayon tricot cloth; top dyeing; second hand and fixer twisters, boucle yarns.

MECHANICAL ENGINEERS, master mechanics and plant engineers; chemists, chem. engineers and laboratory men; industrial engineers; pin setter; card cutter, twister and loom fixer label mill; sew. mach. fixer; methods engineer sewing room; fixer-foreman novelty rayon twisters; expert rayon-cotton finisher for demonstrating textile specialties; fixer-foreman Whitin winders; mechanic knit gloves machines; salesmen and demonstrators for machinery, chemicals, oils, finishes, etc.; plush loom fixer; mechanic-service man warp tying machines; loom fixers for United States and foreign countries; tex. school grad. with or without practical mill experience; fixers Scott & Williams machines.

LIST YOUR CONFIDENTIAL APPLICATION WITH US to keep informed of attractive positions open in the textile mills.

CHARLES P. RAYMOND SERVICE, INC.
294 Washington St. Boston, Mass.
Specialists in Placing and in Supplying Textile Mill Executives

(Continued from Preceding Page)

POSITIONS WANTED

MILL SUPT. Manager or Gen. Supt. Experience silk, rayon, plain Jacquard, upholstery and throwing. Available. PW-3079, Textile World.

RAYON THROWSTER desires position with a reputable throwing concern. Thoroughly trained and experienced in Production & Supervision. Forward thinking, modern & practical in all phases of throwing. Employed at present. Married. References. PW-2831, Textile World.

TEXTILE ENGINEER, B.S. Philadelphia textile institute, desires change. Experienced in cotton carding, spinning, quality and waste control. Can locate anywhere. PW-2641, Textile World.

TEXTILE TECH. Woolen & worsteds. Fully exp. prod., layout, design, quality control. Thorough know. yarns. B.S. Chem. Textile grad. PW-3485, Textile World.

TRICOT PRODUCTION Manager desires position with progressive concern. Experience in supervision, planning, control and development covers both knitting and finishing. Young, aggressive and imaginative. Employed at present. Married References. PW-3080, Textile World.

WARPING FOREMAN, 30 yrs. exp. in supervising and warping for all kinds of yarns, especially silk, nylon, rayon, wool, novelty yarns, and plaid work. 15 yrs. exp. as warping and winding supervisor for large concern. Much experience in fast production. Can handle and supervise all kinds of winding. Age 48. PW-3695, Textile World.

WORSTED YARN Supt. experienced Bradford, French, and American systems on Knitting, Weaving, and novelty yarns of wool, synthetics, and blends. Textile education. Young, Aggressive. Best references. PW-3480, Textile World.

CLOTH ROOM Overseer. I have 40 yr. experience in this type of work—21 yr. on last job. Cottons-combed, carded, colors, fancies, dress goods, shirtings. Rayons, acetates—filaments and mixtures. Prefer to remain in the South. Plenty of references. PW-3805, Textile World.

SELLING OPPORTUNITY WANTED

ESTABLISHED MANUFACTURER'S Agent with good contacts in Automotive Industry invites correspondence with reputable woolen upholstery goods manufacturer relative to representation on commission basis. RA-3765, Textile World.

Supt. of Weaving

Experienced C & K, W-2s and W-3s looms. Making men's and ladies' wear, woolens and worsteds. Also uniform cloths and blankets. Will go anywhere. Married, Middle Aged.

PW-3512, Textile World
330 W. 42 St., New York 36, N. Y.

ATTENTION: CARPET MFGS.

Are you interested in setting up and developing a first Quality Knitted Loop Carpet? Top notch knitter mechanic and designer available.

PW-3727, Textile World
330 W. 42nd St., New York 36, N. Y.

YARN DYEING SUPT.

SOON AVAILABLE

Exceptional background and experience. Chemical and Textile School graduate. Many years in charge of production on all types cotton yarn and threads. Synthetics, worsted etc. Thorough Knowledge of equipment, especially package. Capable of handling sales and customer relationships. Highest references.

PW-3612, Textile World
330 W. 42 St., New York 36, N. Y.

FOR SALE

Seven (7) Stock Dryers—Excellent Condition

Priced Right

Power Driven 9 Section Stainless steel Apron Continuous Stock Dryer with Procter & Schwartz 7'4" wide stainless steel perforated endless apron conveyor, with 9 A.C. Electric Motor driven circulating fans with 8 Crocker Wheeler 1½ H.P. Ball Bearing Induction Motors, 440/60/2/1750 R.P.M. and 11 A-B start and stop switches, American Size 400 Ball Bearing industrial Blower, Type ELS, sheet steel housing, 3 Groove V Pulley Drive, General Electric 10 H.P. Ball Bearing Tri-Clad Induction Motor, 220/440/60/1725 R.P.M. steam pipe coils with Bailey headers and steam traps, 91" wide wood slat automatic feed conveyor, sheet steel enclosed, 11 doors on each side of dryer, 2 Taylor Fluscope Controllers, approximate O.S.D. 10' wide x 8'8" high x 45' long. One of these only one year old, Like New, six other dryers in excellent condition. 60 to 108 ft.

WRITE—PHONE—WIRE

TIOGA PIPE SUPPLY CO.
S. W. Cor. Tulip & Tioga Sts., Phila. 34, Pa. Phone CUmberland 8-1313

FOR SALE

THREAD PROCESSING PLANT DYEING AND GLAZING

Capacity about 3000 lbs. per month.
Established 12 years. ($12,000)

F. WELCH
1781 Concord Detroit 7, Mich.

FOR SALE

ONE MOTOR DRIVEN (K7) 4 FLY ATWOOD REELER

Call Mulberry 4-4007 or Write
THOMAS J. ROBERTIELLO
94 Lee Ave. Haledon 2, N. J.

TEXTILE PLANT WANTED: We are now manufacturing over $20,000,000 in various lines and wish to expand by acquisition of assets or stock of one or more industrial companies. In our negotiations the seller's problems and wishes will receive full consideration. Present personnel will normally be retained.

Address all replies
"Confidential" C. J. GALE, Sec.
733 Broadway, N. Y. 7. N. Y. BA 7-1819

12—72" Crompton & Knowles W-3 looms, 4 x 1 box, convertible, 25 harness head, built 1946
18—76" Crompton & Knowles C-4 looms, 4 x 1 box, convertible, 20 harness head, built 1946

CHICOPEE MANUFACTURING CORP.
Lumite Division, Cornelia, Georgia

WANTED—SURPLUS

CHEMICALS—DYES
SOLVENTS—PLASTICIZERS
OILS—PIGMENTS—WAXES
OTHER SUPPLIES
BY-PRODUCTS—WASTES,
Etc.

CHEMICAL SERVICE CORPORATION
80-10 Beaver St. New York 5, N. Y.

BEMBERG

50,000 lbs—150/115/3 German bright skeins, 1st quality—duty paid—original cases—62¢ a lb.

FS-3579, Textile World
330 W. 42 St., New York 36, N. Y.

WANTED

1—60" High speed tubing machine
1—60" 2 roll quetsch
1—60" 2 roll padder

W-3652, Textile World
330 W. 42nd St., New York 36, N. Y.

DYESTUFFS

Will buy your surplus and obsolete dyes and chemicals for cash.

NEW ENGLAND PRODUCTS CO.
91 Oliver St. Boston, Mass.
Established 1919

WANTED FOR EXPORT

1—125 HP B. & W. straight water tube Boiler, 150 lbs. pressure
1—Shriner Calender, 50"
1—Semi-Decater, 50" art. silk
1—Vertical Brushing Machine 4-6 cylinder, 50" cotton
1—Battery Jacketed Mixing Kettles for print paste
1—Mandrel Jack
1—12 ft. Cottage Steamer
1—2-roll Hydr. Pad. 50"

—Used but in first class condition—

W-3711, Textile World
330 W. 42nd St., New York 36, N. Y.

WANTED

Atwood or Morrison THREAD DRESSERS

State lowest price and location.

W-3701, Textile World
330 W. 42nd St., New York 36, N. Y.

WANTED

To Expedite Production Machinery

including Carding Machines, Spinners, Automatic Looms, Slashers, S/S Dyers, Extractors, Calenders, Clip & Pin Tenters, Dry Cans, Multi-color Presses.

Will consider set up plant now operating or shut down. When offering give full particulars.

P. O. Box 1351
Church Street Sta., New York 8, N. Y.

SCOTT TESTER REQUIRED

Model DH preferred with 400 or 500 pound capacity. Good condition.

Write **H. J. F.**
Bayway Terminal Building #15,
Elizabeth 2, N. J.

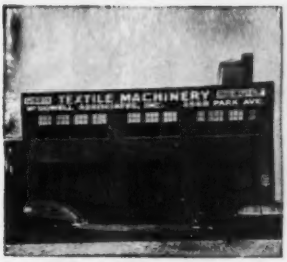
Tricot Manufacturer

is looking for a

SAMPLE TRICOT MACHINE

2 or 3 bar, preferably a 3 bar, about 30 inches wide.

W-3308, Textile World
330 W. 42 St., New York 36, N. Y.



Executive Offices and New York Warehouse

McDOWELL ASSOCIATES INC.

Hudson, New York Warehouse

FOR SALE

PARTIAL LIST - - - IMMEDIATE DELIVERY

CARDING AND SPINNING

8 Ruf BALLING MACHINES, 16 spdls. ea.
1 Warp Compressor BEAMER & 2400 spdl. Creel
100 M Automatic BOBBINS 8¾"
1 D&F BREAST 60" x 16" Dia.
1 Lot New CARD CLOTHING for 60" Cards
3 D&F Iron First Breaker CARDS 60 x 60
1 D&F Iron Two Cylinder CARD 40 x 40
13 Shimmel Iron Three Cylinder CARDS 52", 65" & 72" width, Tape Condensers
1 D&F Iron Three Cylinder CARD 60 x 54, Peralta, Tape Condenser
2 D&F Iron Four Cylinder CARDS 40 x 60, Peraltas, Tape Condensers
2 Whitin Upright CONDENSERS, Return Air Type
2 D&F Tape CONDENSERS 60", 36 ends each
1 H&W Yarn CONDITIONER, type ST1, Automatic Controls
2 Windle DOUBLING, MEASURING & WINDING UNITS 40"—48"
16 P.S. DRAW BOXES, 10—12 & 24 spdl. Units
1 Sargent CONE DUSTER, 6' with Fan
1 D&F FEED TABLE, New for 60" Card
1 Whitin Bramwell CARD FEED Model EL 60"
2 Roy FLOOR CARD GRINDERS 48"
2 Roy TRAVERSE CARD GRINDERS 48"
2 Hunter GARNETTS 3 Cyl. Units 30 x 60
1 P&S GARNETT 2 Cyl. 20 x 60—Double Doffer
7 P&S GILL BOXES, Intersecting 2 & 4 spindle Units
20 C&K LOOMS 82", 4x4, 25 Har., 1930 Model, Belt Drive
40 C&K LOOMS 82", 4x1 Auto., 25 har., 1925 Model, M.D.
72 C&K LOOMS W1, 82" 4x1, Auto. 25 Har., 1928 Model, M.D.
6 C&K LOOMS W2, 82", 4x1, Auto. 20 Har., 1931 Model, M.D.
42 C&K LOOMS W2, 84", 4x1, Auto. 20 Har., 1932 Model, M.D.
24 C&K LOOMS W3, 84", 4x1, Auto., 25 Har., 1937 Model, M.D.
24 C&K LOOMS W3, 88", 4x1, Auto., 25 Har., 1940 Model, M.D.
10 C&K LOOMS W3, 92", 4x1, Auto., 25 Har., 1948 Model, M.D.
16 C&K LOOMS 92", 4x1, Auto., 25 Har., 1936 Model, M.D.
4 J&B MULES, 360 spdls. ea. 2⅛" Gauge, 1946 Model
1 Woonsocket FELTER NAPPER 22 roll 80" wide
1 Dodge SHODDY PICKER 20 x 30 BB Cyl., Metallic Wire
1 Parkhurst BURR PICKER 24" with Blower
1 Sargent BURR PICKER, Multiplex 36" with Blower
1 D&F MIXING PICKER 6 bar 40"
1 C&M FEARNAUGHT PICKER 48 x 48
1 P&S PICKER Wet Stock 60" S.S. Pinned Cyl.
1 D&F SHREDDER PICKER 60" M.D.
3 Whitin WOOL SPINNING FRAMES, 180 spdls. ea. 4" gauge, M.D.
1 Sargent RAW STOCK SCOURING UNIT, 3 bowl 36" with Dryer

COMPLETE WORSTED MILL APPROXIMATELY 8500 SPINDLES FROM SCOURING THRU SPOOLING

1 Sargent PNEUMATIC SQUEEZE EXTRACTOR, 2 roll 60"
2 F&J TWISTERS, 132 spdls. ea. 5½" gauge
1 S&L TWISTER, Wet, 200 spdls., 3½" gauge
2 D&F WARP REELS 82" Pin Type
2 Universal #30 WINDERS, 20 spdls. ea.
1 S&L CONE WINDER, 16 spdls.
1 Foster Model 12 CONE WINDER, 40 spdls.
1 Foster Model 12 COMBINATION TUBE & CONE WINDER 60 spdls.
1 Foster Model 30 CONE WINDER 136 spdls.
3 Foster Model #102 CONE WINDERS, 80—100 spdls.

DYEING AND FINISHING

2 BATCHERS, Single Drum, 66"—72"
2 BEAMERS, 60"—70" M.D.
1 BRUSH, Vertical, 4 roll 57"
1 BRUSH, 4 roll 65" Steamer & Folder M.D.
1 CALENDER Rolling Machine, KNIT GOODS, 36"
1 CALENDER, 3 roll 43½", Screw Set
1 CALENDER, 3 roll 50" M.D.
1 CALENDER, Hyd. 3 roll, 60" M.D.
1 CALENDER, EMBOSSING, 2 roll, 72" M.D.
2 C&M CHINCHILLA MACHINES, 80" Moveable Platens
1 COTTAGE STEAMER 24' x 9' dia. with racks
1 P&W SEMI-DECATUR 72" x 36" dia. Cylinder, Nash L-4 Pump, Motors, Blanket, etc.
1 C&M DEWING MACHINE 60" Brass Discs, Adjust. Deflector Boards
1 DOUBLER & WINDING MACHINE 90"
35 DRY CANS 60" tinned steel, bucket type
1 DRYER, LOOP, Revolving Stick, 84" M.D.
1 DRYER, PIN, 12 pass, 120 yd. 72" M.D.
1 DRYER, SKEIN, Truck Type M.D.
1 DYE KETTLE, 6 String, S.S. Lined
1 PACKAGE DYEING UNIT, C.I., 125 lb. cap.
1 DYEING, SKEIN, Pegg Pulsating S.S. 200 lb. cap.
1 DYEING, SKEIN, Hussong, 350 lb. cap.
1 EXAMINING & MEASURING 60" tube to tube
1 EXTRACTOR 50" monel Basket, Safety Cover, Timer, Vertical Side Motor V-Belt Drive
1 VACUUM EXTRACTOR 80" Slot, L-5 Pump
1 FOLDER 78" adj. ½ to 1-1/8 yd. folds
1 FULLING MILL #28 B S.S. Lined
1 FULLING MILL S.S. Lined Rubber Covered Rolls
1 GRINDER NAPPER 58" M.D.
2 INSPECTING UNITS, 60" Type A Rolling Heads
2 KIERS 8x10' and 8x8', Removable Heads, Heating Coils
1 MANGLE, 2 Roll 50" Screw Set
2 MIXING KETTLES 28" x 27" with Heating Coils
3 Gessner NAPPERS D.A., 18 Roll 66", 80" and 20 roll 90" wide
1 D&F NAPPER D.A., 24 roll 86" wide
1 D&F NAPPER S.A., 14 roll 72" wide
1 PADDER, 2 rubber rolls 12" & 15" dia. 50" face
2 PERCHES, 93½", Forward & Reverse, Tilting Tables for Mending M.D.
1 Voelker ROTARY PRESS 86" M.D.
1 PRINT MACHINE 3 color 60", Back-rigging, Dry Box M.D.
2 VACUUM PUMPS, Nash #2 and L-3
1 QUETCH, 2 Rubber Rolls 50" face M.D.
1 QUETCH, 2 Brass and 1 Rubber Roll 52" face
1 QUETCH, 2 Roll Rubber and Brass 65" with S.S. Dry Can, M.D.
1 ROTARY PORTABLE SEWING MACHINE with Morrow 60-D3B Head, M.D.
6 ROTARY Foot Power SEWING MACHINES
4 RAILWAY PORTABLE Hand Power SEWING MACHINES 54"
1 SCOURING UNIT, SKEIN, 2 bowl M.D.
2 SHEARS, Double Cutters 40"—60"
1 SHEAR, 4 Blade, B.B. 60" Auto. Seamlotthru
1 C&M SHEAR Single Cutter 66½"
1 C&M SHEAR Hi-Speed B.B. 66½" M.D.
1 P&W SHEAR Model A Double Cutter 66½" M.D.
1 C&M SHEARING, STEAMING, BRUSHING RANGE with Two Double Cutter 66½" Shears
1 SLASHER 5 Can, 52" Face, Size Box, Variable Speed Drive, Motors, Copper Size Kettle with Agitator, M.D.
1 SLASHER 9 Can 92" Face, Size Box, M.D.
1 SLITTER 72", 63 Knives, M.D.
1 SQUEEZE SET, 2 Rubber & 1 Steel Roll 64" M.D.
1 STEAMING MACHINE (LONDONIZER) 90" M.D.
3 Schiffer TEASEL GIGS 75" x 38" Dia. Cyl.
1 TENTER FRAME, CLIP, 40'x54" S.S. Plates & Inserts
2 TENTER FRAMES, CLIP, 100'x54" W.G. #5 Clip
1 TENTER FRAME, CLIP, 20'x60" S.S. Clips, Electric Power Opener
2 TUBERS 60" & 70" Reversible Variable Speed M.D.
1 WASHER, ROPE, 3 Compartment, 40" wide
1 WASHER, 2 Bowl, 66" wide, with Squeeze Rolls
3 WINDERS 50" and 60", 100 yd. Dial, M.D.

McDOWELL ASSOCIATES, Inc.
2568 Park Avenue Bronx 51, New York
Tel.: MElrose 5-6741

18 — 200 SPINDLE—1 LB. MODEL 110—5½" GAUGE MOTORIZED — ATWOOD
4 — 256 SPINDLE—1 LB. MODEL 110—6" GAUGE MOTORIZED — ATWOOD
104 — ½ LB. — ATWOOD

TWISTERS

INDIVIDUALLY MOTORIZED—EXCELLENT CONDITION

15 MONARCH—200 SPINDLES—1 MOTOR
60 UTILITY—200 SPINDLES—2 MOTORS
2 UTILITY—156 SPINDLES—2 MOTORS
4 UTILITY—176 SPINDLES—2 MOTORS
23 STANDARD FRAME—220 SPINDLES—2 MOTORS
BOBBIN EQUIPMENT WITH ALL TWISTERS

2— 12 FLY FLETCHER
1— 10 FLY SCRANTON
2— 8 FLY SCRANTON
6— 4 FLY ATWOOD

REELERS

100 UNIVERSAL #50 CONERS

6 SPINDLES PER MACHINE—3030—GEAR GAIN—MOTORIZED—SOME COMPLETE WITH EMULSION TROUGHS AND ROLLS.

8 FOSTER — 25 SPINDLE MODEL 76 — MOTORIZED—EXCELLENT CONDITION

SIZING MACHINES

PHONE 3-7497

Wm. Rabinowitz & Sons

214-222 HAMILTON STREET • ALLENTOWN, PA.

PHONE 3-7498

Partial of our stock of very good

TEXTILE MACHINERY

offered for sale located our warehouse

1—Sargent 2 Cyl. 48" Wool Opener M.D. Rebuilt
1—Sargent 48" Multiplex Burr Picker B.B. Rebuilt M.D.
1—Whitin 48" x 48" 3 Cyl. Woolen Cards, Tape Condenser—96 Ends
2—Whitin Wool Spinning Frames Model A, 1939 3" Ring—4½" Gauge—180 Spindles—M.D.
1—S. & F. Shredder 42" Auto. Feed—Rebuilt M.D.
1—Rodney Hunt Express Fulling Mill—M.D.
1—Kenyon Soaping Machine Rebuilt
1—Woonsocket 20-Roll 80" D.A. Napper B.B. M.D.
1—Woonsocket 36-Roll 80" D.A. Napper Rebuilt M.D.
3—Dinsmore Mill Sewing Machines Model DGF-9
1—P. & W. 18-Roll S.A. 80" Napper B.D.
2—P. & W. Model A 66" Double Shears M.D.
1—Volker 66" Rotary Cloth Press M.D. Rebuilt
1—Gessner 66" Rotary Cloth Press M.D.
3—Tacking Machines 96" M.D.
50—C. & K. 82" Voribest Auto. Looms—M.D. 550/3/60
8—C. & K. 48" Auto. Looms, 25-Har. Heavy Worsted M.D. Rebuilt
1—Wendel Doubling-Measuring-Winding Machine M.D.
100—M Bobbins 3 Ring 6¼"
250—Auto. Loom Shuttles (new)
200—New Raw Hide Loom Pickers
1—Hygrolite Condition Machine
6—42" All Steel Picker Feeds
6—60" Big Hopper Card Feeds
2—60" Cashiko 96-End Card Condensers

JOHN J. McCLOSKEY, INC.

LOUIS J. WELSH, Pres. & Treas. — ROBERT H. WELSH, V. Pres. & Gen. Mgr.

Collingswood 7, New Jersey

Phone 5-0305 — Cable—Mactex

HOSIERY MACHINES

used and rebuilt

KNITTERS—RIBBERS—LOOPERS—CYLINDERS—DIALS—TRANSFERS
HOSIERY NEEDLES AND PARTS

JOS. BRESLANI
N. W. Cor. Hancock & Somerset Streets
Phila. 33, Pa.

IMMEDIATE DELIVERY

2—New 65" Simpson Winder-Batchers with cut off knives, ball bearing rolls, cut gears
1—V. V. Palmer Quetch Unit 64" with Compensator and Blanket, M. D.
1—64" x 40' Tenter Frame, S. S. Clips, M. D.
1—72" x 70' 5-tier Pin Dryer, 10 Passes automatic opener, M. D.
1—50" Single Color Print Machine $750.00
1—60" P. & W. Decater, M. D.
1—54" K. & G. Embosser, M. D.
1—25 Gal. Mixer Copper Jacketed
1—50" Morrison Button Breaker, Ball Bearing $450.00
1—Set of 6 Copper Dry Cans, 50" x 30" Dia.
3—Dinsmore Bicycle Sewing Machines $50.00 each
1—48" Hermas Inspection & Meas. Machine $200.00 M. D.
48—S-5 Looms 56" Completely Equipped, M. D.
1—44" P. & W. Inspection & Meas. Machine, M. D. $150.00
1—50" Padder, 2-Roll $400.00
1—36" Extractor, Copper Basket, M. D.
1—Cottage Steamer
1—60" Singer New Carbomatic, M. D.

A&M BLANK CO., INC.

301-313 East 22nd St. (at 7th Ave.) — Paterson, N.J.

SHerwood 2-1367

MACHINERY FOR SALE
EXCELLENT TEXTILE FINISHING MACHINERY

1—2 Roll Calender 60" 1 Chrome Plated Top Roll 1 Paper roll 57", Bottom roll
1—3 Roll Calender 65" Face Top Roll 90" x 58" Circumference, Middle Roll Chilled Iron 52" Cir. 7 Shaft, Bottom Roll Chilled Iron 53" Cir. 9" Shaft
1—3 Roll Textile Friction Calender Frame, top Roll 50" Chilled Iron, Middle Roll 50" Brand New Husk Roll, Bottom Roll 50" Chilled Iron
1—National Color Grinder 40" face 3 rolls Iron
2—70" Hoge Pantographs
1—46" B.B. Scutcher
1—5 Copper Cans 52" Chas. Johnson Sizing Machine 5 HP, 550 Volts, 60 Cycle, 3 Phase—60 Quetch and bearings
1—60" Batcher for Rubber Goods

Wire—Write—Phone

1—58" Squeeze Set with Rubber and steel Roll
1—56" Curtiss and Marble Calender Machine
3—40" Embossing Machines (Meadow)
1—66" 3-Roll Calender
1—65" 2-Roll Calender
1—50" 3-Roll Friction Calender

TEL. UNION 1-0050

TEXTILE FINISHERS EQUIPMENT
144 WEST RIVER ST.
PROVIDENCE, R. I.

FYANS & LIST

OFFER FOR IMMEDIATE DELIVERY

OPENING AND PICKING

3—Whitin Blending Feeders 1945 M.D.
1—Eriez Magnetic Hump 1945 M.D.
1—Whitin Buckley Opener 1945
2—Whitin Cage Sections
1—Whitin Hopper
1—Whitin 3 Beater Single process picker 40" 1945
1—Whitin Model A Return Air Condenser 1945
1—Toledo Lap Scale
2—Saco-Lowell Single Process Pickers

CARDING

16—Saco-Pettee 45" Cards 27" doffers 12" coilers rebuilt in 1945 with Abington Vacuum Strippers
40—Whitin Cards 27" doffers 12" coilers

DRAWING

16—Deliveries Whitin Bi-Coil Drawing 12" coilers common rolls
4—Medley Drawing Frames-4 deliveries per frame
4—Medley Drawing Frames-6 deliveries per frame
16—Whitin Drawing Frames-5 deliveries per frame

SLUBBERS

4—Saco-Lowell 12x6 Conventional Draft
4—Woonsocket 9x4½ Whitin Interdraft
8—Saco-Lowell 8x4 144 Spindles J-3 L.D.

SPINNING

20—Model E Spinning Frames, 240 sp. ea. tape drive, 3¼" ga., 1¾" ring filling wind. Equipped with Whitin Casablanca L.D. in 1945. Individually M.D. by 7½ H.P. motors. Equipped with Parks Cramer overhead cleaner.
14—Whitin Spinning Frames 3" gauge 1¾" ring, tape drive 240 spindles
24—Whitin Spinning Frames 3¼" gauge 2" ring, 252 spindles, tape drive
46—Whitin Spinning Frames 3¼" gauge 252 spindles Band Drive

WINDING

1—60 GF Winder
2—Universal No. 44 Winders, 120 spindles ea. 1 machine winds on paper cones while 60 spindles of the other machine winds on paper tubes. Other 60 spindles winds on wooden cones.
3—Abbott Winders 2 Model 64, 1 Model 62. 1-Model 64 has 80 heads 1 Model 64 has 70 heads, Model 62 has 70 heads.
1—Saco-Lowell High Speed Warper, complete with 500 end creel.
1—Parks-Cramer certified climate air conditioning unit (Central Station)
1—Barber Colman 204 spindle spooler
1—Barber Colman Warper 408 ends, end over end creel

TWISTERS

19—Fales & Jencks Twisters 4½" ring, 5½" gauge, 132 sp. ea. tape drive 3 ply creel, individually motor driven
5—H&B Twisters 3" ring, 4" gauge, 160 spindles, tape drive, 3 ply creel

LOOMS

188—Draper XK looms, 98-50" r.s., 78-56" r.s., 12-60" r.s., 20 looms equipped with Dobbies. Balance have Clock Spring Tops.
12—Stafford Automatic Looms 76" r.s.
147—Crompton & Knowles "Cotton King" looms 45½" r.s. motor drive.
96—C&K Terry Towel Looms 26" to 36" goods.
20—C&K W-2 Automatic looms, 96" B.S. motor drive, 1936.
85—Draper Model E 40" cloth.
100—Draper Model X 45" r.s. Brown Spring Tops.

WOOLEN EQUIPMENT

2—Saco-Lowell Intersecting Double Ball Gill Boxes
5—Prince Smith Slubbers 3-16 sp., 1-24 sp., 1-30 sp.
4—Saco-Lowell Roving Frames, 36 spindles
10—Prince Smith Roving Frames 1-36 sp., 8-40 sp., 1-24 sp.
10—C&K 82" r.s. 12 harness M.D. 4x1 automatic
28—C&K 78" r.s. 30 harness M.D. 4x1 automatic
20—C&K 82" r.s. 25 harness M.D. 4x1 automatic
14—Prince Smith 2⅜ Herr Ring Spinning Frames, 192 sp. ea. 3⅜" pitch 10" cylinder. Individual Mtr.—4 B-V belt drive.

MISCELLANEOUS

2—Rodney Hunt Stainless Steel Hump Dye Reels
1—Banding Machine
2—Truslow Blenders
1—Hermas Shear
1—Hermas Inspecting Machine
4—Rolling Drums and 3 Swing folders with attachments
1—Rolling Up Machine
68—Sets of Coiler Parts
1—Riggs & Lombard Fleetline Tenter and Baking Unit
1—Davis & Furber Napper 80", 24 roll
1—Gessner Napper 72" double acting
1—Whitin Interdraft Frame 72 del. per frame, 1939, M.D.

SUPPLIES

Cork Covered Cones—Allen High Speed Warper Beams 54¼" B.H. 28" heads
Trucks, Draper 40" loom beams 20" heads—44" beams 20" heads 130 teeth
Roving Cans—10", 12", 14". Vulcanized fibre

ALL ORDERS SUBJECT TO PRIOR SALE

fyans & list MACHINERY CO., INC.

P. O. BOX 454 • FALL RIVER, MASS. • TEL. 5-7431

SEARCHLIGHT SECTION

286—Draper Mod. D. Looms 44", 20 harness dobby. Rebuilt 1947.
250—Draper XD Looms 46", 20 harness dobby. Age 1944.
250—C&K "Cotton King" Looms, 4 x 1, 40" cloth, 25 harness, M.D.
2—Johnson Slashers—7 stainless steel drums 62 x 30" Brown controls, beam creel. Age 1942.
1—Reiner H.S. Warper 56" w/Sipp Creel. Age 1949.
180—Spdls. Whitin Schweiter Quiller.
1—Barber-Colman Tying-In, Model LS.
10—Nottingham Lace Looms—8, 10, and 12 pt.

MILLS FOR SALE

Complete Wool, Cotton, and Rayon Pilot Plant, purchased new 1950.
Jacquard Plush Mill—100 looms
Modern Rayon Weaving Mill—300 looms
Cotton Yarn Mill—15,000 spindles
Plastic and Cellophane Printing Plant
Mercerizing Range—60" width
Franklin Package Dye Unit — 2000 lbs capacity

1—Butterworth Pin Tenter Frame 80' long, 90" wide w/Proctor and Schwartz 40' housing. Age 1943.
8—Werner Stainless Steel Enclosed Dye Jiggs 50", M.D.
1—V.V. Embossing Calender, Pique.
1—K&G Embossing Calender, #4.
6—Hinnekens Dye Becks—12', Age 1949.
1—Van Vlaanderen Hydraulic Calender, 65" wide, 10 ton, pump and motor.
1—V.V. Tenter Frame 120' long w/National Housing 100', 20 fans, 64" cloth. Age 1950.
2—Hinnekens Continuous Boil-Off Ranges, 66" wide x 30' long.
1—Phila. Loop Dryer 35' long, 83" wide revolv. sticks.
1—Textile Hydraulic Calender, 46" wide, 7 rolls, 40 ton.
1—Textile Ager, 72" wide, 20' long.

Rice, Barton and Fales Print Machines; 12 colors—48", 8 colors—60", 7 colors—42", 1 color—45"

REPUBLIC TEXTILE EQUIPMENT CO.
40 WORTH STREET NEW YORK CITY
REFINANCING • APPRAISALS • PURCHASE • SALE • LIQUIDATION OF MILL PROPERTIES

FOR SALE!

5—Werner 60" Stainless Steel Dye Jigs
1—Werner 2-Roll 60" Pneumatic Padder
1—Perkins 3-Roll 50" Hydraulic Calender
1—Van Vlaanderen 60'x60" Tenter, Palmer & Quetch

James E. Fitzgerald 10 PURCHASE ST., FALL RIVER, MASS.
Telephone 8-5616
SPECIALIZING IN BLEACHING, DYEING AND FINISHING MACHINERY SINCE 1920

MODERN MACHINERY

2000 Mazie Warper Beams 13¾" O.D., 12⅞" or 13-3/16" between flanges 13" heads
1—50" Butterworth 1949 complete Bleaching Range
1—50" 3 Roll V.V. Calender
9—Walton Humidifiers with controls
1—60" cloth Progressive Inspecting & Measuring Mach.
1—70" Measuregraph Inspecting Measuring & Tubing Mach.
3—42" cloth Draper Model K Looms
102—46" cloth Draper XD 1949 Looms
60—50" R.S. Draper Mod. E Looms, Mtrs.
36—50" cloth C. & K. B-5 1942 Looms
90—64" cloth Draper XD 1949 Looms
1—Terrell Bobbin Stripper with compressor
1—B.C. Warp Tying-In Mach. Mod. LS
1—101" DT Warper Sipp East, with 504 end Pin Creel, lge. pkge.
1—Hill 4 Spool Edge Warper
24—Spdls. 1948 Whitin-Schweiter Winders
2—46 Spdl. Sipp East, DH Winders
3—28 Universal 6 Spdl. Winders

TRIANGLE
PROCESSING MACHINERY CO., Inc.
Specializing in Export & Domestic Production Machinery
305 CLIFTON AVE. Telephone: PRescott 9-8850 CLIFTON, N.J.

Loom-Motor Maintenance

(Continued from page 151)

to become penetrated with oil, and the life of the insulation and windings will be reduced.

Motors that use wool-waste sleeves should be inspected every 3 mo., the oil cap removed with a screwdriver, and the waste checked. The purpose of the waste is to filter the oil and return the oil from the bottom of the rotor shaft to the top of the shaft. The waste should be saturated with oil, but not to the extent that oil will be forced into the stator coils.

The wool waste should be loose in the motor housing so that the oil will flow freely to the sleeve. A small grappling hook, made from an ice pick, can be used to loosen the waste. If the waste is hard or shows fiber deterioration, the motor should be removed from the loom and the waste replaced.

Usually, when waste is replaced in a motor, thorough cleaning of the motor is desirable. A work bench, containers for a petroleum solvent, cotton waste, and brushes should be used. The containers should have a hardware-cloth rack a few inches from the bottom to separate residue from parts being cleaned.

Take the Motor Apart

The motor housing is disassembled, and old waste is removed and discarded. (To prevent fires, a closed metal container should be convenient for disposal of wool and cotton waste.) Care should be taken as housing and stator coils are cleaned to keep the winding insulation as dry as possible, and compressed air should be used on the windings as soon as they are wiped dry. Stator coils should not be dipped in the solvent.

Several methods are used to clean the rotor and shaft: The rotor may be soaked in a petroleum solvent until foreign matter is softened and then the rotor wiped clean and dry with cotton waste. The rotor may be left in a container of chemical solvent and water. After the rotor is cleaned with the solvent, it is washed with water. Live steam is also effective in cleaning the rotor.

Often the keyway for the pinion gear is worn in the rotor shaft. If the rotor shaft is in good condition other than at the keyway, the keyway is filled with welding by many mills and then remachined in the mill machine shop. The threads on the shaft for the pinion-gear nut should be inspected, and threads in bad condition should

(Continued on page 342)

PORTABLE - STATIONARY
NEW & REBUILT
Gas - Diesel - Electric - Steam
RENT - SELL - BUY

—SPECIAL—
—SCHRAMM—
—THREE AVAILABLE—
596 CFM - 100# - 100 HP. Model 420 Base Mounted with 100 HP-G.E. Tri/Clad 3/60/220/440 Built-In Motors. Complete with self contained cooling system. No Foundation Required
– LIKE NEW –
– IMMEDIATE SHIPMENT –

FOR RENT—ANY ONE OF OVER 200 COMPRESSORS IN STOCK

Air Receivers - Aftercoolers In Stock

AMERICAN AIR COMPRESSOR CORP.
48th & Dell Ave. No. Bergen, N. J.

FOR SALE

2—Franklin Process Co. stainless steel Package drying machines, 220 package capacity, complete with ball bearing centrifugal pump, motor driven. Lot #23608-09.

1—Proctor & Schwartz Truck Dryer, 2-door, 2000 lb. capacity, 15' wide, 8'-10" high, 10'-6" long, steel housing. Lot No. 23015.

1—Ford one ton capacity chain hoist, 12'-6", with I beam track, 4-wheel trolley. Lot No. 23608-A.

1—Connersville 36 tube package yarn dryer complete with compressor, blower, heater, dryer, motor and controls. Lot No. 23010.

Write, Wire or Phone

MORRIS SPEIZMAN COMPANY, INC.
508 West 5th Street, Charlotte, N. C.
Phone 4-5546

FOR SALE

GAS FIRED AIR HEATING SYSTEM

Never unrated. Natural gas direct firing for heating maximum of 35,000 CFM of air to a temperature in excess of 350 deg. F. Total capacity 2,470,000 BTU per hour. Can be modulated down to 800,000 BBTU per hour. Selas Corporation ceramic ribbon type burner. Selas ceramic combustion chamber reinforced with steel, complete with ignition system and safety flame rod and head. Included inspirator and combustion air blower.

For complete details and price, write or wire

H. WENZEL TENT & DUCK CO.
1035 Paul Street St. Louis 4, Mo.

DOYLE & MILLER
For new iron
Cylinders, Doffers, Workers, or Strippers
Sample cards, rebuilt Picker Feeds
Parts for all makes of Platt Woolen mules -
Two ply flyers for yarn reels
Philadelphia 27, Pa.

FOR SALE

20—#50 Universal Winders for winding cones single end
2—#45 Universal Winders
4—98 Spindle Take-Ups for Luther Thread Dressers.

COMMONWEALTH THREAD CO.
Mill St. Lonsdale, R. I.

AMERICAN VISCOSE

50,000 lbs—75/30/2½ Bright sub-standard cakes, original cases—68¢ a lb

FS-3580, Textile World
330 W. 42 St., New York 36, N. Y.

. . WE OWN AND OFFER FOR SALE . .

SPECIALISTS IN REBUILDING & RECONDITIONING LOOMS

10—75" Reedspace, C&K, 4x4, heavy woolen looms, equipped with 25 harness head motion and 1 HP, 3/220/60 motors.

10—82" Reedspace, C&K, 4x4 heavy woolen looms, equipped with 25 harness head motion and 1 HP, 3/220/60 motors.

16—72" Reedspace, C&K, 4x4 box looms, completely rebuilt to weave upholstery. Equipped with extended bottom shafts, new 1½" shuttle boxes, oversize layswords and 3" throw crankshafts, shock absorbers, removable cloth rollers, pick clocks, 1½ HP, 220 Volt Motors, 22" dia. flanged beams, friction let off bands.

8—58" Reedspace, C&K, 4x4 box looms, 20 harness double index dobby, multipliers, beams, motorized.

10—72" Reedspace, C&K, 4x1 looms, roller bearing, 20 harness intermediate head, shock absorbers, motor driven.

1—80 Spindle Sipp Winder.

1—120 Spindle Sipp Winder.

1—Tirrell Bobbin Stripper, Cotton Type.

1—Measuregraph Measuring Machine for 40" goods.

1—Edge Warper.

45—54" Reedspace, C&K, S-4, 4x1 Automatic shuttle change looms, 20 hook double index dobby, removable cloth rollers, temples, pick clocks, ½ HP, 220 Volt motors, electric warp stop motion, beams.

2—New, 624 Hook Double Lift Single Cylinder C&K Jacquard machines still in original cases.

4—New, 624 Hook Double Lift Double Cylinder C&K Jacquard machines still in original cases.

20—60" Reedspace, C&K, 4x1 looms, 20 harness dobby, side center filling motion, plain bearing, 2 shift pick counters, individually motor driven.

18—Draper Automatics, 43½" reed space, individually motor driven, dobbys.

20—#90 Universal Quilling and Copping Machines with and without bunch-builders.

1—72" Sipp Horizontal Warper with heavy tapered spokes. Motor driven.

1—83" Sipp Horizontal Warper with heavy tapered spokes. Motor driven. Thoroughly reconditioned.

1—30 Spindle Lazenby, Model D-Jr. cop Winder. Machine was installed in 1945. It is built with roller Trumpets. Spindles to wind paper ribbon to cops 1¼" dia x 10" long.

1—Edge Warper, Hill Machine Co., motor driven with Variable speed drive, arranged with 2 spindle take up and adjustable traverse.

1—Terrell Bobbin Stripper, Type L with conveyor and air compressor, Type Y, Westinghouse Air Brake Co.

12—C&K, 2x1 automatic terry towel looms, 36" reedspace.

8—C&K, 4x1 automatic terry towel looms, 40" reedspace.

Complete Plants and Real Estate Bought, Liquidated and Appraised

Paterson Textile Machinery Exchange
INC.
formerly the Paterson Silk Machinery Exchange, Inc.
22 SPRUCE ST. SHerwood 2-1363-4-5-6 PATERSON 2, N. J.

FOR SALE

Universal #50, #90 Winders rebuilt to your specifications
5 Ruf Balling Machines
1 Landfear Spool Printer
2 Chelmsford Balling Machines
1 60 Spindle Universal Roto-Coner
2 Universal Model B, 6 Spindle Machines

WANTED

Universal #44 Roto-Coners

GAINES TEXTILE MACHINERY CO. INC.
141-45 West 17th St. New York 11, N. Y.

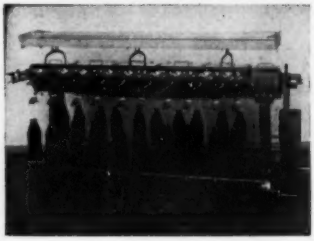
SAVE WITH CONFIDENCE
OUR 35 YEARS EXPERIENCE PROTECTS YOU

1—New Measuregraph 60", motor driven.
15—Werner 72" Stainless Steel Dry Cans, vari-drive.
1—Sheridan 9AH Hydraulic Embossing Press, automatic feed, rewind, heavy head and base.
1—61" Spreader Head with 5 copper Cans, 60", motor drive.
50—Universal #90 Winders, bunch builders, tensions, overhead cone rests, individual motor drive.
1—Butterworth 3-roll 60" Hydraulic Calender, late type.
1—Butterworth 3-roll Laboratory Padder, 12" vari-drive.
1—Van Vlaanderen 65" Palmer, complete with blanket, motor.
1—Whitin Model BJ-2 Downtwister, 6" gau, 4½" ring, ball bearing.

Send Us Your Inquiries

COMPLETE PLANT FOR MANUFACTURING SEAMLESS COTTON BAGS

OUR 35th YEAR
CONSOLIDATED PRODUCTS CO. INC.
13-16 PARK ROW N.Y. 38 N.Y. BArclay 7-0600



REBUILT WINDERS

We thoroughly rebuild all types of yarn winding equipment—Universal #5, #6, #10, #50, #80 and #90; Foster Model #12, #30 and #101, Lazenby, Oswald Lever, Sipp, Atwood, George Payne.

STANDARD MILL SUPPLY

6700 Empire State Bldg. New York, N. Y. 1004-1008 Main Street Pawtucket, R. I.
2319 Hutchison Ave. Charlotte, N. C.

S&K Where your $$$$ buy MORE

COMPLETE PLANT—PLASTIC SEAT COVERS C & K AUTO. LOOMS 82"

50 C & K S-3 LOOMS 54" R.S.

5 BOWL SCOURING TRAIN
7000 LBS CARPET WOOL 4/19's ON CONES

50 C & K 2x1 52" R. S.
16 C & K 2x1 Automatic 72" R. S.
6 C & K 4x4 72" R. S.
56 C & K 4x1 56" R. S.
4 C & K 110" R. S. 4x4
2 C & K 100" R. S. 4x4
12 C & K 92" R. S. 4x1 Automatic
18 C & K 4x1 Automatic 82" R. S.
22 DRAPER LOOMS 55" R. S.
20 DRAPER LOOMS 80½"
12 DRAPER LOOMS 54"
42 C & K 54" AUTO 2x1

DYEING MACHINERY

1 New 80½" Beamer
14 S. S. Cans 48"
1 80" wide Pin Tenter Frame
1 40' Hinnikens 60" frame with Gas Burners, reeves & motor
2 Jiggs 66" S.S. New
1 Paterson Examiner, 72" wide
1 72" Park Woolson Decater
1 Set 18 Dry Cans 48" face; 5 stainless steel, 13 iron tinned with reeves
8 Dye Boxes S.S. lined 8'—10'—12'
1 Jostrom fabric conditioner 64"
1 19 can Butterworth dryer 72"
1 Textile Tenter Frame 52" wide 40' long
4 Three (3) Roll Padders 45"
30 50" Dry Cans
5 Atwood SB Twisters
9 Atwood Single Deck Utility Spinners
8 Sipp Warpers & Winders
20 #90 Universals
4 Oswald-Grundy 46—Spindle Cop Winders
11 Foster-Coners 75A
2 Johnson Slashers 7 Can & 3 Can—66"

STAVE & KESSLER
106 KEARNEY ST. P. O. Box 1611 Paterson, N. J.
Phone ARmory 4-7486

(Continued from page 340)

be built up with welding and rethreaded.

The stator coils should be inspected while the motor is disassembled. The windings should be repaired or replaced, either in the mill's own shop or at an outside electric shop. A sealer should be used on the windings after they have been cleaned.

Worn sleeves are replaced before the motor is reassembled.

Wool waste of two types is used in loom motors. Loose waste or coiled waste encased in tubes is repacked in the oil reservoir when the motor is reassembled. The waste is oiled before the oil cap is replaced.

For Anti-Friction Bearings

Motors having anti-friction bearings present another method of maintenance. Several different types of these bearings are used, and each must be serviced differently.

The sealed-in-grease bearing is a common type. This bearing may be run without repacking for 5 yr. under normal conditions. Loom running conditions make unusual demands on a motor because of the "quick start" of the loom, the vibration of the many loom motions, and the long periods of continuous operation.

Each mill that uses the sealed-in-grease bearing should carefully observe and record its own operating conditions by periodically disassembling one or more motors. When dry bearings are found, a schedule should be developed for cleaning and repacking all the sealed-in-grease bearings.

Other types of anti-friction bearings are installed in motors that have reservoirs for grease storage. Usually, one-third to one-half of this chamber is filled with grease. Most of these motors have grease filler plugs and drain plugs, and grease is added periodically. The addition of grease may lead to an over-supply in the reservoir and may force the lubricant into the stator.

The grease chamber can be cleaned without disassembly of the motor. The cleaning should be done at least every 3 yr.

To clean the reservoir, the drain plug and grease filler plug are removed, a petroleum solvent is poured into the grease filler opening, and the motor is run until the solvent drains. Solvent is added until clean solvent drains out of the motor. A flushing-oil wash is sometimes used with good results, but the motor should be drained thoroughly before new grease is added.

The proper amount of new grease

(Continued on page 344)

MACHINERY LIQUIDATING COMPANY

A FEW ⟨MLC⟩ OUTSTANDING VALUES

ITEMS BELOW PRACTICALLY NEW CONDITION

1 FINISHING RANGE containing one 60" Morrison 2-roll 15T PADDER with Foxboro controls, rubber top roll, S/S bottom roll approx. 20" dia. with 60" W&J Clip TENTER and Andrews & Geodrich SUPER DRYER with Proctor Roller Curer with individual motor driven rolls.
1—100" P&S Rev. Stick Loop Dryer
1—72" James Hunter Multi-Pass Pin Tenter Dryer
1—60" Hinrekens 20' Tenter with stainless steel clips
1—72" Gessner Semi-Decater with blanket, pump, motors
1—8' Rodney Hunt Type P Tru-shade S/S Dye Beck
1—18" Rodney Hunt Type C all stainless steel Sample Dyeing Machine
1—200 lb. Pegg Pulsating S/S Skein Dyeing Machine with circulator
1—Rayon Cloth Opening Range including 72" scutcher, vacuum pump, adj. vacuum box, detwister, all motors and controls.
1—60" Morrison S/S Dye Jigg
1—50" Morrison 3-roll 5-ton Microset Padder
1—Merrow Style 60 ABBY Seam Stitching Machine with safety table
1—Tillinghast #2 Master Portable Rotary Foot Power Sewer.

OTHER HARD TO FIND EQUIPMENT

Obermaier Package Dyeing Equipment, consisting of
2—400 lb. and 1—200 lb. stainless steel dyeing Machines
2—Proctor & Schwartz Tray Dryers and 4—100 sp. Foster #101 Winders
4—Smith Drum CSD Type Skein Dyeing Machines; 3, 7, 12 and 20 arms
1—Morton S/S 300 lb. Combination Package and Beam Dyeing Machine
1—30" Sample Piece Dye Kettle S/S lined
2—48" V. VI. Dye Jiggers
5—45"-50" 2 and 3 roll Padders
1—75" Textile 3-roll Mangle
1—Hurricane 2-compartment Dryer complete with 4 tray trucks
1—50 lb. S.D. Monel Rotary Hosiery Dyeing Machine
1—200 lb. Rome Monel Rotary Dyeing Machine
1—150 lb. Strickland monel Paddle Hosiery Dyeing Machine
2—25 lb. Butterworth monel Paddle Dyeing Machines
8—18" to 60" Tolhurst and Hercules Extractors
1—350 lb. Hussong monel metal Skein Dyeing Machine with hoist and track
3—Sets Dry Cans; 35—108" copper cans, 9—50" and 7—50" tinned iron
1—66" Pin Tenter 50'
2—80" D&F 20-roll Nappers
1—65" 3-roll Calender; top roll Chromium plated heated, center roll (new paper), bottom roll chilled iron heated.
1—45" Sturtevant motor driven Blower
1—52" C&M Flat Folder

ALSO MANY OTHER GOOD ITEMS

WANTED—GOOD SURPLUS TEXTILE MACHINERY OF ALL TYPES

MACHINERY LIQUIDATING COMPANY

A Dealer of Recognized Reliability—Domestic & Export

NEW YORK OFFICE—33 W. 42nd Street, New York 36, N. Y. Phone: Pennsylvania 6-8014
CHICAGO OFFICE—224 So. Michigan Ave., Chicago 4, Ill. Phone: Harrison 7-7140
WAREHOUSE—Hawthorne, N. J., 4th Ave. Phone: Hawthorne 7-4380

SPECIALISTS IN SELLING AND PURCHASING TEXTILE MACHINERY, ACCESSORIES AND MILL SUPPLIES

USED EQUIPMENT

AVAILABLE IMMEDIATELY

Item H-FC
6—S.A.G. FRENCH COMBS
Year 1948
Wide Model
30½" x 12" can
22" x 23" apron

Item L-WQ
WHITIN QUILLER—MODEL J
304 Spindle
3¼" Gauge—10½" Traverse

Item 512K
2 FOSTER WINDERS
Model 102—7" Traverse
100 Spindles for Tube Winding
Takes wood bobbins 8" x 1½"
50 Spindles & one motor each side
Equipped with steel bobbin bins at sides and chain conveyor for removal of empty bobbins

Item H-WC
2 WORSTED CARDS
2 Cylinder—Davis & Furber
54" Diameter x 54" Face
With Bramwell Picker Feed
Balling Head Delivery

COLLINS & AIKMAN CORP.
Sales and Salvage Department
6th & Upland Aves.
Upland, Delaware Co., Pa.
Phone—Chester 3-4167

BIALEK'S BEST BUYS

PRICED FOR QUICK SALE
370—DRAPER MODEL "XK," DOBBY AND CAM LOOMS, MOTOR DRIVEN, STOP MOTION, LET-OFF, SILK TAKE-UP, SIDE FILLING FORK.

B. C. KNOTTER
1949-LS TYPE, MOTOR DRIVEN—EXCELLENT CONDITION

S-3, 56" R.S., 2x1 AUTO. SHUTTLE CHANGE

50" DRAPER "XD" DOBBY, 1948

WHITIN AUTO QUILLERS, 1949

SLASHERS—52", 60", SILK AND COTTON SYSTEM

84" SIPP HI-SPEED WARPER WITH 840-END MAGAZINE CREEL

THEODORE BIALEK & CO.

396 Straight St.
Paterson, N. J.
Lambert 3-5886

6704 Empire State Bldg.
New York 1, N. Y.
Longacre 3-4978

UNITED OFFERS

1—Whitin Bale Breaker
3—Whitin Single Process Pickers, 3 Beater, 1930
1—S.L. Single Process Picker, 2 Beater, with Blending Reserve
1—Kitson Breaker Picker
1—Kitson Finisher Picker
1—Whitin Single Cylinder Waste Machine
8—Mason 40" Cards, 24" Doffer, 12" Coiler
72—Del. S & P Drawing, BB Rolls, Spiral Gearing
12—Woon., 8 x 4 Slubbers, Model M Long Draft 136 Sp.
1—Woon., 8 x 4 Slubber, H & B. Hi-Draft, 1948
1—Cocker High Speed Warper with Foster Mag. Creel, 500 live ends
1—Entwistle Speed Warper & Univ. Mag. Creel, 500 live ends
50—C & K 4 x 1 Auto. Looms, 51½ B.S. 25 Harness Heavy Dobby, M.D.
12—C & K—W2 Auto. Looms, 82", M.D.
1—Textile Tenter Frame, 30' x 50", Enclosed Gearing
1—VV, 40' x 50" Tenter, SS Clips
1—HW Yarn Conditioner, Like New
1—Hygrolite Yarn Conditioner, 1939
1—Reed Cleaning Machine, 1948
1—Gessner Semi Decater, 72", with Pump
1—3 Roll, 50" Hydraulic Calender, M.D., Textile
1—Butterworth 50" 3 Roll Friction Calender
1—72" 5 Roll Calender
1—VV—50" 2 Roll Padder, M.D.
1—Nash #4 Vacuum Pump and 25 h.p. Motor
1—"Trumeter" Yardage Counter, Ticket Printing Device

UNITED TEXTILE MACHINERY COMPANY
(Leon H. Bakst)
52 Twelfth St. Fall River, Mass.
Tel. F.R. 2-6959

TEXTILE AUXILIARIES

REAL VALUES IN RECONDITIONED FINISHING MACHINERY

1—Set of 30 to 60 Copper Cans, 50" wide, with vertical stands 8 or 9 or 11 to column, reconditioned like new.
Also, 3—Copper Cans, 56½" x 7' diameter.
Also, Copper Cans up to 106" wide.
1—Embossing Calender, 60" wide.
1—Embossing Calender, 65" wide.
1—Butterworth 90' Swing Tenter, exceptional buy.
1—Butterworth, 72" wide, 5 bowl Chasing Calender, 2 combination rolls, 1—chilled iron roll, 2—steam or gas heated steel rolls with let-off and take-up.
1—Butterworth 20' x 80" Pin Tenter, set up ready to run.
2—35 hp, 220 volt, B.T.A. Print Machine Motors.
Expansion Pulleys, all sizes.

ASK FOR OUR DETAILED LIST
We specialize in Finishing Machinery
TELEPHONE: Dexter 1-9650

PROVIDENCE, R. I.

FOR SALE FOR SALE

COMPLETE MILLS

1— 5,000 spindle Yarn Mill, as unit or liquidate.
1— 3,000 spindle Yarn Mill, as unit or liquidate.
1—20,000 spindle Yarn Mill, as unit now running.
1— 5,000 spindle Yarn Mill, as unit now running.
1— 6,000 spindle Yarn Mill, as unit now running.
1—Rug Mill now running as unit.

WILSON LEWITH MACHINERY CORP.
Post Office Box 4100, CHARLOTTE, N. C. Phone 4-2403 Warehouse: Wilkinson Blvd. Behind Barbeque Lodge

100 No. 50 UNIVERSAL CONERS — "L" DRIVE, S. S. EMULSION ROLLS & TROUGHS, GEAR GAIN
Tube + 3" 30° Cone Attachments, Anti-Wear Tensions, Motorized
4-1LB. 5B ATWOOD DOUBLERS — 64 Sp. 4" Rings, 8" Spacing, Double 2" Feed Rolls, Motorized
50 NO. 75 FOSTER CONERS — S. S. EMULSION TROUGHS & ROLLS—3°30' TAPER
20 ATWOOD REDRAWS — GATE TENSIONS—FINGERS TAKE 5" DIA. HEAD
5 SIPP WINDERS — D.D., OIL-LESS BEARINGS, FINGERS WILL ACCOMMODATE 5" DIA. HDS.
100 M. FIBRE HEAD SPOOLS 4-9/16"T x 3"H x 1½" Bbl.
250 M. FIBRE HEAD SPOOLS 3⅛"T x 3"H x 1⅜" Bbl.
70,000—7" PAPER COPS WITH METAL FEELERS

PENNSYLVANIA SPOOL & EQUIPMENT CO.
530 N. FULTON ST. ALLENTOWN, PA. Phone 3-7545

(Continued from page 342)

to be placed in the chamber should be judged by means of a grease gun on a disassembled motor. Shots of grease should be counted until the reservoir is one-third to one-half full.

Use the Proper Grease

Care should be taken in the choice of the proper grease for replacement. Motor-manufacturers' specifications should be followed if they are available. If the grease used is too hard, it will not flow freely enough to lubricate the bearing. A grease that is too soft will escape from the bearing under high temperatures. A grease of a consistency of 275 Worked Penetration or a number 2 N.L.G.I. grease should be used. A light-colored grease is preferable to a dark grease because discoloration can be used as an indicator of wear.

Anti-friction-bearing motors that do not have a drain plug must be disassembled for cleaning and repacking. While the motor is off the loom, a drain opening should be bored and tapped.

The person who lubricates and checks loom motors should be carefully selected. A good man, properly trained, will be valuable in the prevention of major breakdowns.

The pinion gears should be checked periodically for tightness on the tapered rotor shaft. A loose motor pinion will wear the shaft so that it will be impossible to keep the gear tight. Gears should be tightened systematically every 6 mo. An extra pinion gear can be laid over the regular pinion to lock the motor gear while the nut is tightened.

Lint and other foreign accumulations should be removed from the motor gear and pinion gear. Rotor shafts are often sheared off because of excess lint between the gears.

Loom motors are often overloaded and become excessively heated. This condition results in a quick "break down" of the grease. An overloaded motor requires more frequent servicing than one that operates under normal conditions.

Several loom conditions may cause a motor to become overloaded. Often a bearing in one of the driving shafts (cam or crank) is binding. The binding should be eliminated at once. The use of multiple harnesses in a dobby weave will add greatly to the motor load. Heavy weaves are also hard on a motor, especially at the beat-up.

A well-planned program of loom-motor maintenance will not reduce weave-room production to any great extent and will actually increase weave-room efficiency over a period of years.

FOR SALE

4 D.&F. 60 x 60 all iron Cards. Whitin intermediate Feeds. 20" Breasts Whitin Tape Condensers
2 Single breaker waste Cards, all iron D.&F. 60 x 60 20" Breasts Bramwell Feeds
3 Double Cylinder D.&F. 60x60 all iron Waste Cards 20" breasts Bramwell Feeds
1 72" Extractor Rubber lined basket
2 82" Pinless Dressing Reel units
1 92" Pinless Dressing Reel unit
4 P.&S. Ceiling Condensors
5 Sets D.&F. all iron Worsted Cards 54x48
1 D.&F. 24 roll D.A. Napper-Cone Drive
5 Ball bearing Cylinder Rag Pickers with extra cylinders
3 D.&F. 48" Spoolers 48 ends
Quantity of Harness Frames, Spools, Mule bobbins all sizes and slightly used Card Clothing.

"WHAT WE ADVERTISE WE OWN"

GREEN TEXTILE MACHINERY INC.,
OXFORD, MASS.

PATTERN WHEELS FOR SALE

20° jack wheels, also solid cut wheels for 16" and 24" Brinton or Supreme sinker top machines, 96 cut to 142 cut. Wheels in excellent shape, practically new.

WARREN FABRICS CO. INC.
West Warren, Mass.

MILLER MACHINERY CO.

66 RAILROAD AVE. PATERSON, N. J.
Tel. Sh 2-5467-8

JOHNSON 66"

7-DRUM SLASHER

Warpers • Winders • Quillers
Looms

DYE SPRINGS

MANUFACTURED

EXPERTLY RE-WOUND
AT A REAL SAVING

SOLD IN GOOD
USED CONDITION

WALTER S. GATES
LAKE ORION, MICH.

MAC M. ROTHKOPF & CO., INC.

317 Bushwick Avenue Brooklyn 6, N. Y.
Telephone HYacinth 7-1486-7

KNITTING and
TEXTILE MACHINERY
BOUGHT and SOLD
PLANT LIQUIDATIONS
and APPRAISALS

PREPARATORY

1—P.&S. 80" Card Feed (Mod. 535—Practically New)
1—Sargent 43" Picker Feed
1—Hunter 7 section Raw Stock Dryer
1—D. & F. 7' all iron Cone Duster
1—Schofield 48" automatic Duster (box)
1—Woonsocket 36" x 36" ceiling condenser & blower
2—18" x 18" P. & S. Ceiling Condensers
1—S.F. 60" Garnett Shredder
1—"Parkhurst" 48" Burr Picker with Feed
1—Sargent 36" Duplex Burr Picker
1—Schofield 18" x 40" Rag Picker
1—Butterworth 18" x 30" Rag Picker
1—D. & F. 48" Fearnaught Mixing Picker
2—Card Floor Grinders 60"
2—40" Stock Blowers, B.B.
2—Opening Pickers, 40"

WARPING AND WEAVING

4—D. & F. or Altemus Warpers—rebuilt to order—82"—120". Pin or Pinless
1—Globe Ball Warper & Creels
6—Draper 54" Mod. G. Warpers
24—C. & K. W2, 82" 4x1 Looms
12—C. & K. W-1 76", 4 x 1 Looms
4—C. & K. 92" 4x1 automatic Looms
4—C. & K. 82" 4x1 automatic Looms
36—C. & K. 82" (4x4) Box Looms
2—L & G Chenile Cutters

WINDING

UNIVERSAL #50 & #96 WINDERS
REBUILT TO ORDER

1—Universal 60 G.F., 96 sp. Cone Winder
1—Foster, Mod. 101, 100 sp. Cone Winder
2—Foster, Mod. 12, Skein to cone Winder. 60 sp., & 40 sp.
2—J. & B. Jackwinders, 80 sp. & 120 sp.
10—Lindsay Hyde Adjustable Skein Reels
1—Whitin Quiller 2½" Gauge (long chain)
1—P.S. 132 sp. Twister 4" Ring, band dr.
1—Laxenby 15 sp. Cop Winder
1—Sargent 16 sp. Balling Machine, 1948

FINISHING

1—Hunter Squeeze Set, 96", hydraulic
1—Fletcher 60" Top Mtr. Dr. Extractor
2—Birch Bros. & Tack. Mach. (92")
1—Woonsocket 84" D. A. Napper, 36 rolls
1—P. & W. 68" 4 cyl. Brush & Sander
2—Tecale Gig's, double cylinder (80")
1—Yorkshire Crab 72"—3 bowl
1—S/S Lined 60" Wetting-out Tank with squeeze rolls (Pneumatic Pressure)
2—P. & W. 68" Mod. A Double Shears
2—Voelker 65½" D. B. Presses
2—P. & W. 68" Semi-Decaters
1—Set Dry Cans (4) 27" Copper
34—Vertical 100" Dry Cans, Copper, Tinned Steel
1—Cloth Measuring & Rolling Machine 80"
1—Windle 66" Cloth Doub. & Meas. Mach.
2—P. & W. 68" Cloth Doub. & Meas. Mach.
1—P. & S. 2 Truck Skein Dryer

FRANK W. WHEELER CO.

1837 E. Ruan St. Philadelphia 24, Pa.
Phones: Jefferson 5-4771-4772
Reputable Dealers for over a quarter of a century

SPECIAL OFFERINGS

3—V.V. 54" Silk Embossing Calenders, Hydraulic & Lever press. Ball Bearings. Rolls. Motors.
1—P. & S. 50" Pre Dryer, 350° Temperature.
1—60" Finishing Calender, 3 rolls Ball Bearings, Motor drive.
1—Butterworth 90'x60" Tenter Frame, Motor drive.

SEND FOR NEW LIST OF OFFERINGS

INDUSTRIAL PRODUCTS OF AMERICA
140 Market Street IPA Paterson, N. J.
SHerwood 2-6614-5-6 CABLES: *Texindus*

REBUILT MACHINERY FOR IMMEDIATE DELIVERY

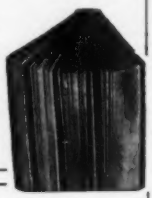
1—72" Parks & Woolson Decatizer, Pump & Motor.
1—Butterworth Clip Tenter 48' x 72", Stainless Clips, Reeves 6 Motor.
1—Hinneken, 60" Variable Speed Examining & Tubing Machine.
1—Elliott & Hall 34" and 60" Flat Folders.
2—W.J. Tenter Frames, 30' x 54"
1—W.J. Tenter Frames, 30' x 96"
1—3 roll silk or rayon Calender, M. D.
1—48" Self Balancing Extractor, M. D.
2—150 gal. Jacketed Kettles with agitators.
1—Set of 21-72" x 23" Dry Cans Horizontally.
1—72" Hydraulic Padder, M. D.
1—Set of 9—20" x 80" Heavy Steel Dry Cans.
1—Set of 7 copper cans, horizontal, Reeves & motor.
1—30" V. V. Button Breaker.
1—64" Van Vlaanderen motor driven Tuber.
1—54" King & Gerber embossing calender, M. D.
2—60" motor driven Beamers.
4—Hermas measuring & inspecting machines, tube to tube.
1—60" Measuring, Inspecting & Tubing Machine, tube to tube, new, variable speed, forward, neutral & reverse.
30-60 gallon copper steam jacketed Kettles.
1—Hinneken's Roll-off Machine.
1—Sterling 7½ H. P. Vari-drive.
1—Reeves 7½ H. P. Vari-drive.
About 5,000 S. S. high speeed V. V. Clips.
Agitators of various sizes.
Motors of various sizes.
New & Used Electric Hoists.

One 66"—3 Drum Johnson Slasher, Reeves Drive & Motor. In excellent condition
2-3 ft. 2-8' 1-10' 1-14' Stainless Steel Lined Dye Boxes
New Copper Rollers 16" x 60" wide, W Bore

SHerwood 2-7666 SHerwood 2-7667
DOMESTIC Moe Blank EXPORT
TEXTILE MACHINERY
523-525 E 18th ST PATERSON 4, N. J.

QUALITY-CONTROL HANDBOOK

1. Comprehensive handbook presents the whole story of quality control. Use it for basic or advanced review of *all* phases, not only the statistical, of the quality-control function—for quick reference to many formulas, data, record forms, and other practical information. Covers the economics of quality control; organization for quality; acceptance, control, and assurance of quality; application to specific processes and products. Every section is the work of specialists; illustrative examples from actual cases and records offer practical working information. **Edited by J. M. Juran, Consulting Management Engineer. 768 pages, 6 x 9, 176 illus. $10.00, payable on terms.**



COTTON LOOMFIXER'S MANUAL

2. Here are detailed instructions on the practical setting, adjusting, and timing of modern looms. This guide covers all phases of cotton loom fixing. If you want a complete course in loomfixing, or only a refresher to broaden your knowledge and increase your skill, this book will fit your needs to a "T." It covers such important subjects as left-off, harness, picking, warp-stop, filling-stop, and protector motions; loom construction; filling feelers; cutters; box multiples; shuttles, etc. **By Ivar Moberg, Instr. in Weaving, Loomfixing and Designing, Nashua Mfg. Co. 197 pages, 108 illus., $3.50.**

FABRIC DEFECTS

3. A practical guidebook of almost 200 actual case histories of defects in textile materials, with explanations of the contributing factors and suggestions for analysis. Describes principal types of defects occurring in cotton, filament rayon, spun rayon, and blended fabrics. Over 95 original photomicrographs illustrate gray-goods manufacturing defects from raw fiber through weaving—rayon or man-made yarn faults—dyeing and finishing faults—imperfections in finished garments, etc. **By J. B. Goldberg, Research Dir., J. P. Stevens & Co., Inc. 363 pages, 96 illus., $6.00.**

PLANT ENGINEERING HANDBOOK

4. This practical handbook presents the facts that show how to run any industrial plant efficiently and economically. It deals with economic, mechanical, chemical, and power operation of a plant . . . gives essentials of today's good practice in 76 major areas of plant operation and maintenance. Includes such recent developments as synthetic rubber, industrial plastics, silver alloy brazing, trade waste disposal, etc. **William Staniar, Editor-in-Chief. 1955 pages, 1406 illus., 544 tables. $15.00, payable on terms.**

SEE THESE BOOKS 10 DAYS FREE

McGRAW-HILL BOOK COMPANY, 330 W. 42nd St., N. Y. C. 36

Send me book(s) checked below for 10 days' examination on approval. In 10 days I will remit for book(s) I keep, plus few cents for delivery, and return unwanted book(s) postpaid. (We pay for delivery if you remit with this coupon—same return privilege.)

- ☐ 1. Juran—**QUALITY-CONTROL HANDBOOK, $10.00** (payable $2 in 10 days, $4 monthly)
- ☐ 2. Moberg—**COTTON LOOMFIXER'S MANUAL, $3.50**
- ☐ 3. Goldberg—**FABRIC DEFECTS, $6.00**
- ☐ 4. Staniar—**PLANT ENGINEERING HANDBOOK, $15.00** (payable $3 in 10 days, $3 monthly)

(print)
Name .....
Address .....
City .....Zone....State.....
Company .....
Position TW-4-52

This offer applies in U. S. only.

INDEX TO ADVERTISERS

An * indicates additional data in the 1951-52 Pre-Filed Textile Catalog and Textile World Yearbook

This index is published as a convenience to the reader. Every care is taken to make it accurate, but Textile World assumes no responsibility for errors or omissions.

*Abbott Machine Co. 239
Acme Knitting Mach. & Needle Co. 331
Acme Steel Co. 245
Aldon Spinning Mills 329
Alemite Div., Stewart Warner Corp. 65
*Allen Beam Co. 330
Allen-Bradley Co. Inside Back Cover
Allen Mfg. Co. 286
*Allentown Bobbin Wks., Inc. 254
*Allis-Chalmers Mfg. Co. 61
Allis Co., Louis 43
Aluminum Co. of America ... 67
Alvey Conveyor Co. 195
American Blower Corp. 86
American Bobbin Co. 64
American Crayon Co. 329
*American Lava Corp. 233
American Leather Belting Assn. 262
American Metal Spinning & Stamping Co. 328
American Numbering Mach. Co. 272
*American Paper Tube Co. 61
American Schlumber Co. 221
American Steel & Wire Co. ... 94
American Viscose Corp. 231
American Yarn & Processing Co. 321
*Armstrong Cork Co. 8, 84-85
Arnold, Hoffman & Co., Inc. . 27
*Ashworth Bros., Inc. 42
*Atkinson, Haserick & Co. 20-21, 22-23, 24
Atlantic Rayon Corp. 274
*Atlas Electric Devices Co. ... 306
*Bagley & Sewall Co. 325
Bailey, Frank 332
*Barber Colman Co., Textile Div. 315
Barco Mfg. Co. 311
Barnes Textile Associates, Inc. 318
Bausch & Lomb Optical Co. ... 227
Bemis Bro. Bag Co. 252
Bendix Aviation Corp., Eclipse Machine Div. 70
Price Instrument Div. 270
*Bersworth Chemical Co. 316
Bijur Lubricating Co. 246
*Blickman, Inc., S. 323
Boger & Crawford 261
*Boston Woven Hose & Rubber Co. 89
*Brinton Co., H. 228
Bristol Co., The 261
Bryant Chemical Corp. 179
*Buffalo Forge Co. 305
Buffalo Pumps, Inc. 260
*Butterworth & Sons Co., H. W. 146
Cabot Inc., Samuel 326
Calco Chemical Div., American Cyanamid Co. 181
*Caldwell Co., W. E. 333
Caledonian Dye Works 329
Carpenter Steel Co. 82
Carrier Corp. 297
Celanese Corp. of America ... 293
Chemical Div. 247
Century Electric Co. 76
Chain Belt Co. 307
Chemsteel Construction Co., Inc. 332
*Chicago Pneumatic Tool Co. .. 299
Ciba Co. 87, 88
Cities Service Oil Co. 158
City Bank Farmers Trust Co. . 253
Cleaver-Brooks Co. 169
Cleveland Tramrail Div., The Cleveland Crane & Eng. Co. 80
Clinton Foods Inc. 319
Clipper Belt Lacer Co. 323
*Cocker Machine & Fdry. Co. . 266
*Cole Mfg. Co., R. D. 266
*Colson Corp. 270
Columbia-Geneva Steel Co. ... 94
*Continental-Diamond Fibre Co. 284
*Cook—P & N Machine Co., Inc. 160
Corn Products Refining Co. ... 285
*Crane Co. 100
Crane Mfg. Co. 276
*Crompton & Knowles Loom Wks. 44
Crucible Steel Co. 51
*Curtis & Marble Machine Co. 278
Dana Warp Mills 329
Daniels Inc., C. E. 262
*Darnell Corp., Ltd. 258
*Dary Ring Traveler Co. 288
*Davis & Furber Machine Co. .. 274
Dayton Rubber Co., The 197
Dexter Chemical Co. 280, 282
*Dinsmore Mfg. Co. 327
Dixie Leather Corp. 13
Dodge Mfg. Corp. 102
Dolge Co., C. B. 278
*Dommerich & Co., L. F. 36
Dow Chemical Co., Dowicides 154
*Draper Corporation 1
Dronsfield Bros. Ltd. 327
Duesberg-Bosson of Amer., Inc. 287
*Du Pont de Nemours & Co., E. I., Electrochemical Dept. 229
Textile Fibers Dept. 225
*Durant Mfg. Co. 302
Edmos Products Corp. 226
Edroy Products Co. 320
Elliott Co., Crocker-Wheeler Div. 50
Emerson Apparatus Co. 280
*Emery Industries, Inc. 156
Erie Mfg. Co. 275
Ex-Cell-O Corp. 72
Fafnir Bearing Co. 95
Fairbanks Co., The 248
Fairbanks, Morse & Co. 294
Falls Yarn Mills 282
Feustel, Inc., Ernest A. 321
Fielden Instrument Corp. 210
*Fletcher Works 303
*Foster Machine Co. 48
Foxboro Co. 74
Fuller Brush Co. 200
Gair Co., Inc., Robt. 40-41
Gardner-Denver Co. 32
Gates Rubber Co. 47
Gaylord Container Corp. 171
General Chemical Div., Allied Chem. & Dye Corp. 205
General Dyestuff Corp. 211
*General Electric Co. 58, 96-97
Globe Dye Works 240
Goodyear Tire & Rubber Co. 9
Graton & Knight Co. 13
*Grinnell Co., Inc. 103
Gulf Oil Corp.—Gulf Refining Co. 49
Hardwood Mfg. Co., The 289
Harris Research Laboratories. 230
*Haskell-Dawes Mach. Co., Inc. 300
*Hayssen Mfg. Co. 241
*Heim Co. 204
Heineman Corp., O. Div. of Aetna Industrial Corp. 249
Herr Mfg. Co., Inc. 271
*Hild Floor Machine Co. 326
Houghton & Co., E. F. 99
*Howard Bros. Mfg. Co. 34
*Hunter Machine Co., Jas. 77
*Huyck & Sons, F. C. 318
Hyatt Bearings Div., General Motors Corp. 66
*Ideal Industries, Inc. 281
*Industrial Heat Eng'g. Co. ... 278
Interchemical Corp., Textile Colors Div. 35
Iselin & Co., Inc., Wm. 259
*Ives Co., L. T. 331
*Jenkins Sons Inc., M. W. 238
*Jiffy Textile Marker Co. 330
Johnson, Charles B. 16
Kearny Mfg. Co., Inc. 6
Keever Starch Co. 199
*Kenyon & Son, D. R. 333
Kidde & Co., Inc., Walter ... 273
*Kirkman & Dixon Machy. Co. 347
Knitting Machine & Supply Co. 264
*Lambeth Rope Corp. 329
*Lane & Bros. Inc., W. T. 323
*Laurel Soap & Mfg. Co. 255
Lazenby & Co., F. A. 282
*Leighton Machine Co. 212
Linde Air Products Co., a Div. of Union Carbide & Carbon Corp. 196
*Link-Belt Co. 7, 29
*Loper Co., Ralph E. 330
Machinecraft, Inc. 265
Malow Sheet Metal & Mach. Wks. 292
Manhattan Rubber Div. 101
Manheim Mfg. & Belting Co. 290
Marshall & Williams Corp. ... 289
Masury-Young Co. 203

Oldest Name in Textile Testing

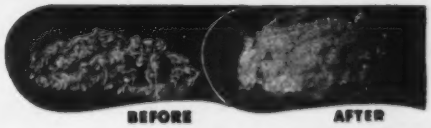
When you align yourself with Scott, you receive the benefit of over 50 years experience in the Art of Textile Testing . . . during which time we have originated or assisted in developing most of the physical test methods and equipment accepted today as standard the world around.

REQUEST CATALOG 50

SCOTT TESTERS, Inc., 95 BLACKSTONE ST., PROVIDENCE 5, R. I.

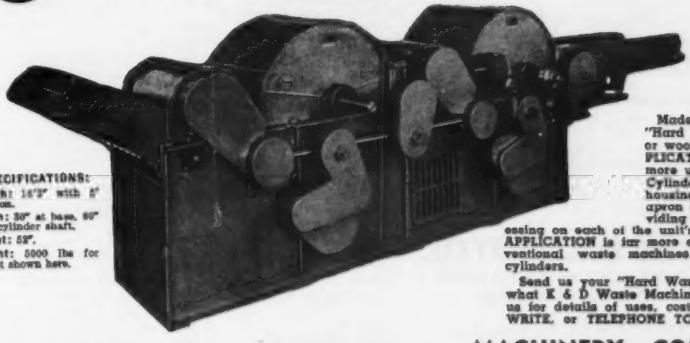
Scott Testers — Standard of the World

You can now whip your "HARD WASTE" problem—with the



LEFT above is hard twist unsized cotton warp waste. RIGHT—the processed waste after one time through K & D Tandem Unit. Many mills, pleased with such results from first installation, have ordered additional units.

K&D TANDEM APPLICATION WASTE MACHINE



SPECIFICATIONS:
Length: 16'2" with 5" apron.
Width: 30" at base, 60" at cylinder shaft.
Height: 52".
Weight: 5000 lbs for unit shown here.

Made for processing unsized "Hard Waste" in cotton, rayon, or wool, this new TANDEM APPLICATION combines two or more units of the K & D Single Cylinder Waste Machine in one housing, with only one feed apron and one exit apron. Providing double-action waste processing on each of the unit's cylinders, the TANDEM APPLICATION is far more efficient than bulky, conventional waste machines with twice as many cylinders.

Send us your "Hard Waste" samples for proof of what K & D Waste Machines can do for you. Ask us for details of uses, cost and installation. WIRE, WRITE, or TELEPHONE TODAY, to

Kirkman & Dixon MACHINERY COMPANY
Greenwood, South Carolina

K & D SINGLE CYLINDER WASTE MACHINES • F-5 HOPPER FEEDERS, ANY WIDTH • SARGENT COMBS

"NATIONAL"

MODEL G

AUTOMATIC PIECE GOODS DRYER and CURING OVEN

Previous models of "NATIONAL" dryers of this type have successively advanced the efficiency, speed and economy of piece goods drying, with each new design offering greater production and quality rewards to finishing plants and departments. In this latest model, an even higher investment return is assured, through additional improvements in design, construction, operating and control elements.

NEW "INSUL-POLE" CONVEYOR . . . The patented rotating-expanding conveyor poles are made of a special heat-resisting composition. This "INSUL-POLE" was produced by "NATIONAL" to provide greatly increased service life for the conveyor at the higher temperatures required by modern processing developments.

COMPLETELY ENCLOSED ENDS . . . . to assure minimum heat loss, and to prevent escape of noxious fumes in resin curing. HEAVIER CONSTRUCTION . . . including improved and heavier driving mechanism. IMPROVED AIR CONTROLS . . . to accomplish uniform air distribution in the new *wider* machines.

DUPLEX CONVEYORS . . . The new MODEL G Dryers can be furnished with two independently operated and controlled conveyors in the same drying system. This permits two runs, of light and heavy goods, at two different speeds.

HEATING . . . May be steam, steam with gas booster, gas, electric or other mediums.

Send for New Illustrated Booklet

THE NATIONAL DRYING MACHINERY CO.
LEHIGH AVENUE and HANCOCK STREET
PHILADELPHIA 33, PENNA.

New England Agent: INGALLS ENGINEERING CO., Providence, R. I.
Southern Agent: F. W. WARRINGTON, Charlotte, N. C.

DRYING AND CONDITIONING MACHINERY FOR TEXTILES, CHEMICALS, CERAMICS, ETC.

*M-B Mfg. Co., Inc. 198
McCreary Machine Wks., Inc.. 237
McGraw-Hill Book Co., Inc. 346
*Meadows Mfg. Co. 28
Mellor, Bromley & Co., Ltd.. 244
*Merrow Machine Co. 331
*Milton Machine Wks., Inc.... 268
Minneapolis-Honeywell Reg. Co.,
Industrial Div. 250-251
*Monsanto Chemical Co.,
Phosphate Div. 152
Textile Chemicals Dept..... 45
Morris Fur Co. 328
*Mt. Hope Machy. Co. 314
National Aniline Div., Allied Chem. & Dye Corp..... 39
*National Drying Machy. Co... 348
National Pneumatic Co., Inc. 312
National Ring Traveler Co.... 75
National Starch Products.... 150
National Tube Co. 94
New Departure Div.,
General Motors Corp..... 60
N. Y. & N. J. Lubricant Co... 268
Nopco Chemical Co. 12
Norris Bros. 280
Oakite Products, Inc. 325
Pabst Sales Co. 310
Page-Madden Co., Inc.... 173
Parks-Cramer Co. 62
Penick & Ford Co., Ltd..... 327
*Perfecting Service Co. 202
Pfister Chemical Wks., Inc.... 185
Philadelphia Quartz Co..... 266
Pick Mfg. Co. 319
Platt Bros. (Sales) Ltd.....20-21
Pneumafil Corp. 59
Powell Co., Wm. 79
Precision Gear & Machine Co. 322
*Prince, Smith & Stells..... 22-23
*Proctor & Schwartz, Inc..... 232
*Ragan Ring Co. 287
Raybestos Manhattan, Inc., Manhattan Rubber Div..... 101
Reeves Pulley Co. 38
*Reiner Inc., Robert.....222-223
Reynolds Metals Co.....68-69
Building Products Div..... 313
Rhoads & Sons, J. E. 5
Richmond Oil, Soap & Chem. Co. 278
*Ridge Tool Co. 236
*Robert & Co., Associates
Inside Front Cover
*Rohm & Haas Co. 191
Rome Soap Mfg. Co. 329
Ross Engineering Corp., J. O. 317
*Roy & Son Co., B. S. 323
Ryerson & Son Inc., J. T.... 148
*Saco-Lowell Shops 55, 56-57
Sandoz Chemical Wks., Inc.17, 18
*Sargent's Sons Corp., C. G.... 90
Scherr Co., Inc., Geo. 332
Schlafhorst & Co., W. 11
Schweiter Ltd. 221
*Scott Testers, Inc. 347
Scott & Williams, Inc. 267
Scragg & Sons Ltd., Ernest.. 333
Sherwin-Williams Co. 192
Shimadaya Co., Ltd..... 284
Sirrine Co., J. E. 332
Sisalkraft Co., The..... 296
Societe Alsacienne De Constructions Mecaniques.. 24
Socony-Vacuum Oil Co., Inc. 25
Solvay Sales Div., Allied Chem. & Dye Corp..... 283
*Sonoco Products Co. 163
*Southern Shuttles Div.,
Steel Heddle Mfg. Co..206, 207
Southern States Equipment Corp. 295
*Standard Chemical Prod., Inc. 175
Standard-Coosa-Thatcher Co.. 217
*Standard Fabricators Inc.... 269
*Standard Pressed Steel Co... 328
Star Woolen Co. 189
Steelcote Mfg. Co. 317
*Steel Heddle Mfg. Co....206, 207
Stellite American Corp..... 308
*Stephen-Adamson Mfg. Co... 91
Sterling Electric Motors.... 83
*Sterling Ring Traveler Co... 264
*Stop-Motion Devices Corp.... 224
Sun Oil Co. 92-93
Superior Combustion Industries, Inc. 324
*Supreme Knitting Mach. Co., Inc. 219
Swift & Co., Soap Dept..... 263
Sylvania Electric Prod., Inc.. 301
Taylor Instrument Cos..... 279
Tennant Co., G. H. 256
Tennessee Coal & Iron R. R.. 94
Tennessee Corp. 322
*Terrell Machine Co., Inc.... 10
Textile Banking Co. 183
*Textile Machine Wks....104, 165
Textile Process Engineers, Inc. 276
Tide Water Assoc. Oil Co.. 46
*Tompkins Bros. Co. 242
Torrington Co., The.....53, 54
Tropical Paint & Oil Co..... 19
Union Carbide & Carbon Corp., Linde Air Products Co.... 196
Unionmatex, Textilmaschinen-Union, G. M. B. H..... 37
*US Bobbin & Shuttle Co..... 81
*U. S. Ring Traveler Co..... 272
U. S. Rubber Co., Mechanical Goods Div..... 243
U. S. Steel Co. 94
U. S. Steel Export Co. 94
U. S. Steel Supply Co. 94
U. S. Stoneware Company.... 320
U. S. Testing Co. 282
*Universal Winding Co..14-15, 176
Utica Novelty & Mill Spec. Co. 324
*Van Vlaanderen Mach. Co... 167
*Veeder-Root, Inc.....Back Cover
Victor Ring Traveler Co..... 73
*Warner & Swasey Co. 33
Warwick Chemical Co. 2
Watson-Williams Mfg. Co.... 304
Westinghouse Electric Corp., Air Conditioning Div..... 52
Lamp Div. 234-235
Micarta Div. 98
Motors & Controls.....30-31
Textile Industry 208-209
West Point Fdry. & Mach. Co. 291
*Whitin Machine Works..... 78
Whitney Chain Co. 71
Wildman Mfg. Co. 237
*Wolf & Co., Jacques..... 277
Wood's Sons Co., T. B..... 333
*Wyandotte Chemicals Corp.. 309
Yale & Towne Mfg. Co..... 187

■

PROFESSIONAL SERVICES

Barnes Textile Associates..... 318
Eaton & Bell 335
Loper & Co., R. E. 330
Robert & Co. Associates..Second Cover
Sirrine Co., J. E. 332
Textile Process Engineers Inc... 276

■

SEARCHLIGHT SECTION

(Classified Advertising)
H. E. Hilty, Mgr.

EMPLOYMENT
Positions Vacant 335
Selling Opportunities Offered. 335
Positions Wanted 336
Selling Opportunities Wanted. 336
Employment Services 335
BUSINESS OPPORTUNITIES
Offered 336
PROPERTY
Wanted 336
EQUIPMENT
(Used or Surplus New)
For Sale 336-345
WANTED
Equipment 336
Miscellaneous 336

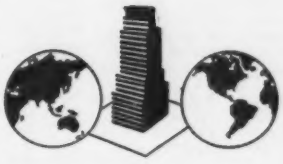
ADVERTISERS INDEX

American Air Compressor Corp. 341
Bialek & Co., Theodore..... 343
Blank Co., Inc., A. M. 338
Blank, Moe 345
Bresani, Joseph 338
Chemical Service Corp..... 336
Chicopee Mfg. Corp. 336
Collins & Aikman Corp..... 343
Commonwealth Thread Co.... 341
Consolidated Products Co., Inc.. 342
Doyle & Miller..... 341
Fitzgerald, James E. 340
Fyans & List Machinery Co., Inc. 339
Gates, Walter S. 345
Gaines Textile Machinery Co., Inc. 341
Gale, C. J. 336
Green Textile Machinery, Inc.. 345
Industrial Products of America. 345
Lewith Mchy. Corp., Wilson.... 344
Machinery Liquidating Co..... 343
McCloskey, Inc., John J. 338
McDowell Associates, Inc..... 337
Miller Machinery Co. 345
New England Products Co..... 336
Paterson Textile Machinery Exchange 341
Pennsylvania Spool & Equipment Co. 344
Rabinowitz & Sons, Wm. 338
Raymond Service, Inc., Chas... 335
Republic Textile Equipment Co. 340
Robertiello, Thomas J. 336
Rothkopf, Mac M. 345
Speizman Co., Inc., Morris..... 341
Standard Mill Supply..... 342
Stave & Kessler..... 342
Textile Auxiliaries 344
Textile Finishers Equipment Co. 338
Tioga Pipe Supply Co. 336
Triangle Processing Machinery Co., Inc. 342
United Textile Machinery Co... 344
Warren Fabrics Co., Inc..... 345
Welch, F. 336
Wentzel Tent & Duck Co., H... 341
Wheeler Co., Frank W. 345

TEXTILE WORLD

APRIL, 1952

Foreign-Language Translations



▸ Brief Summaries in Spanish, French, and German of the Major Feature Articles in This Month's Issue

Español

A Nuestros Lectores de Habla Castellana

Los artículos de TEXTILE WORLD son redactados en estas breves reseñas con el objetivo de ayudar a que todos los encargados de la producción conozcan así cómo otras plantas textiles han aumentado su producción por medio de una buena organización de los diversos elementos que componen los problemas encontrados; cómo estas plantas pudieron reducir sus costos por unidad de producción; cómo mejoraron la calidad de su producto; o cómo están laborando en el campo cada día más importante de mejores relaciones entre los empleados y la gerencia.

Estos artículos que le ofrecemos interesan *directamente* a su planta, y usted los puede traducir completamente en su país.

Esta sección, escrita en el idioma que quizás sea más práctico para los textileros del extranjero, debe servir tanto como un índice conveniente del contenido de la revista como de índice para las traducciones que se necesiten. TEXTILE WORLD urge sinceramente a sus lectores que utilicen al máximo esta sección. ¡Pase la revista a otros encargados de la producción de su organización que puedan usar plenamente los conocimientos e información mecánica que se ofrece todos los meses! Haga traducir los artículos que encuentre de interés y que desee que conozcan sus encargados de producción que no lean el inglés.

Cuando no hay cambios para mejorar una organización, prevalece el estancamiento y hasta el abandono de las obligaciones de los responsables del bienestar y progreso de la organización. Un mejoramiento no quiere tampoco decir siempre que hay que gastar gran cantidad de dinero.

Es muy sencillo. Verifique los artículos en esta sección que indiquen un gasto pequeño inicial; luego, cerciórese de que la información llegue a manos del hombre indicado, en una forma u otra, para que se haga en su fábrica un trabajo similar. Eso es todo.

Página 108

Máquinas de Menguado de Cabeza Sencilla. He aquí los datos sobre los métodos que deben usarse con la máquina tejedora de medias menguadas Wildman de cabeza sencilla, de 54 galga. Desde el comienzo hasta el final, usted puede seguir estos procedimientos para obtener los mejores resultados de sus máquinas. Entre las fases tratadas hay: comienzo, volteo del dobladillo, tejiendo la pierna,

Français

A Nos Lecteurs de Langue Étrangère

Le but de TEXTILE WORLD est d'aider par ces résumés tous ceux que concerne la production de l'industrie textile en leur signalant par quels moyens d'autres industriels surent augmenter leur rendement grâce à l'étude des divers facteurs de leur organisation – comment ils surent réduire leurs prix de revient – de quels moyens ils se servirent pour améliorer la qualité de leurs produits – et enfin de porter à la connaissance de ses lecteurs les pratiques les plus favorables en matière de rapports entre patrons et ouvriers (chapitre qui gagne de plus en plus d'importance).

Il vous sera toujours possible de faire traduire au complet ceux des articles dont nous vous donnons le résumé et qui vous semblent particulièrement importants.

Nous croyons que bien des lecteurs étrangers trouveront cette section de résumés d'une lecture aisée. Elle servira à la fois de table de matière et de liste où l'on annotera ceux des articles que l'on désire faire traduire. Comme la section mentionne en la substance des divers articles de chaque numéro – articles d'information pratique concernant tous les départements de l'industrie textile – tours de main et "façons de faire" – nous recommandons donc de passer TEXTILE WORLD à tous ceux dans votre usine qui seront à même d'utiliser les renseignements qui s'y trouvent. Joignez en même temps les traductions que vous aurez jugé utile de faire faire.

Une politique de stagnation ne peut qu'être défavorable à n'importe quelle usine. Un manque d'informations sur ce qui se passe ailleurs causera plus d'un collaborateur à ne donner qu'une fraction du rendement dont il serait normalement capable. Et notez que bien des perfectionnements dont parle notre publication peuvent se faire à peu de frais.

C'est pourquoi nous recommandons de choisir celles des améliorations dont la réalisation peut se faire avec peu de débours. Veillez ensuite que l'article qui décrit les changements en question parvienne à celui que cela concerne et que l'on passe à l'exécution d'un programme de changement si modeste fût-il.

Page 108

Métiers à une tête pour bas diminués. L'article est une étude des méthodes à employer dans une usine employant des métiers à une tête construits par la firme Wildman, en jauge 54. La description vous permet de suivre toutes les phases de cette fabrication et touche entre autres aux sujets suivants: mise en route, le doublebord, le tricotage de la jambe, le talon

Deutsch

An Unsere Fremdsprachigen Leser

Diese kurze Inhaltsangabe der Artikel der TEXTILE WORLD werden mit dem Augenmerk auf Hilfe fuer alle Erzeuger vorbereitet, um ihnen zu zeigen, wie andere Textilfabriken die diversen Phasen ihrer Produktion durch gute Organisation erhoehen, wie sie die vielfachen Probleme loesen konnten, wie sie es ermoeglichen die Einheitskosten ihrer Erzeugnisse herabzusetzen, wodurch es ihnen gelang, die Qualitaet ihrer Produkte zu verbessern, oder wie sie das wichtige Feld der verbesserten Beziehungen zwischen Arbeitsgebern und Angestellten bearbeiten.

Jene Artikel, welche Sie speziell fuer Ihre Fabrik als wichtig erachten, koennen Sie immer oertlich in vollem Umfange uebersetzen lassen.

Dieser Abschnitt, der in einer Sprache geschrieben ist, die vielleicht leichter fuer geschulte ueberseeische Fabriksangestellte zu lesen ist, soll sowohl als kurze Inhaltsangabe, als auch Inhaltsverzeichnis der Uebersetzungen dienen. Die TEXTILE WORLD fordert dringlichst auf, diesen Abschnitt voll auszunutzen und diese Fachschrift an alle Leute in ihrer Organisation weiterzugeben, die Sie gut fuer Anweisungen und mechanische Auskuenfte jeden Monat brauchen koennen. Lassen Sie Uebersetzungen derjenigen Artikel machen von denen Sie wollen, dass Ihre nicht englisch-sprechenden, mit der Erzeugung beschaeftigten Leute, Kenntnis haben sollen.

Ohne Veraenderungen zum Bessern gibt es Stillstand in jeder Organisation und sogar Pflichtvergessenheit der fuer das Gedeihen einer Firma verantwortlichen Personen. Eine Verbesserung bedeutet fuer ein Fabrik nicht unbedingt grosse Geldausgaben.

Zeichnen Sie die Artikel in diesem Abschnitt an, bei welchen Sie finden, dass fuer den Anfang wenig Geldausgaben benoetigt werden. Eine Verbesserung bedeutet fuer eine Fabrik nicht unbedingt grosse Geldausgaben; dann sehen Sie dazu, dass die richtigen Leute in irgend einer Weise davon in Kenntnis gesetzt werden, sodass eine aehnliche Arbeit in Ihrer Fabrik unternommen wird. Es ist nicht schwer.

Seite 108

Einkoepfige vollfassionierte Maschinen. Hier ist eine Anfuehrung der Methoden, die an einkoepfigen, vollfassionierten, 54 teil Wildman Strumpfmaschinen verwendet werden sollen. Vom Anfang bis zum Ende kann man diese Prozeduren befolgen, um beste Resultate von den Maschinen zu bekommen. Unter anderem wird erlaeutert: Anlaufen, Wenden der Naht,

el talón alto reforzado, tejedura del pie y puntera, y reajuste de la máquina.

Página 109

Tejedura de Tricot. Este artículo está dedicado para los textileros que no están todavía en el negocio del tricot pero que han estudiado mucho la cuestión de añadir géneros de tricot a sus renglones de géneros tejidos. Entre los puntos tratados en el artículo están: requisitos de espacio de piso, compra del hilo en carretes en comparación con hacer el urdido usted mismo, las economias de la producción de tricot, el número de empleados que necesita, y una sección excelente sobre distribuciones. Hay también una sección dedicada a la relación de ganancias de su inversión.

Página 110

Calcetines de Rombo Hechos a Máquina. Los calcetines de rombo se hacían antes exclusivamente a mano--pero ya no. Sólo hay dos fábricas en los E. U. A. que tienen gran producción con estas máquinas, pero este artículo dice cómo una de esas plantas está trabajando 44 máquinas Banner con tres tejedores y un fijador. El secreto de su éxito estriba en el hecho de que cada tejedor inspecciona y corta su propio trabajo. La producción es de 350 docenas por día con estas máquinas, y hay muy pocas "segundas."

Página 111

Consejos sobre la Tejedura Tubular. Este artículo ofrece varios consejos para obtener buenas cargas de trabajo en la tejedura tubular. En su mayor parte, el tamaño de cabeza y el número de avances determinan las encomiendas de la máquina. Algunos tejedores prefieren una diversidad de tamaños de cabeza, mientras que otros encuentran su mayor habilidad en un grupo de máquinas similares. El agrupamiento de los tamaños de cabeza es una buena forma de simplificar las encomiendas de las máquinas. Las cargas de trabajo son arregladas generalmente de manera tal que cada tejedor produce cada día un peso igual de géneros.

Página 114

Preguntas a los Tejedores de Menguado. Los tejedores de menguado se interesarán en los métodos útiles bosquejados en este artículo. El material es presentado en la forma de siete preguntas provocativas: ¿Qué hace usted con respecto a las cabezas torcidas? ¿Está usted ligando los extremos? ¿Dónde están sus tableros de control? ¿Cuán a menudo limpia usted las tinas? ¿Es estricto su inventario? ¿Cómo están sus condiciones de trabajo? ¿Cuántos de estos nuevos desarrollos utiliza usted – puntera sin gazas, pre-fijación en húmedo, cable calefactor?

Página 118

Transportador de Medias. En este artículo se describe un transportador para la elaboración final y el empaquetado de medias circulares. En el transportador trabajan diez muchachas y producen hasta 3.200 docenas por turno de 8 horas. Se dicen las obligaciones de cada muchacha y también se encuentran algunas de las características funcionales del transportador.

Página 119

Reunión de Fabricantes de Medias. En el Hotel Waldorf-Astoria de Nueva York se reunieron casi 500 fabricantes de medias, en una conferencia de dos días, para tratar de las formas y maneras de mejorar por procedimientos legales el mercado que se encuentra actualmente con exceso de mercancía. La mejor solución es la restricción voluntaria de las

renforcé, tricotage du pied et de la pointe, réglage du métier pour le bas suivant.

Page 109

Tricotage sur métiers pour tricot indémaillable. Cet article est destiné aux industriels qui n'ont pas encore de métiers de ce genre mais qui songent sérieusement à ajouter à leur tissage un département pour des marchandises de ce genre. Cette étude traite entre autres des points suivants: emplacement que requièrent ces métiers; de la question de l'achat des chaînes toute ourdies par rapport à un ourdissage fait dans votre usine; de la question des prix de revient; du nombre d'ouvriers nécessaires. Vous y trouverez en outre des remarques fort utiles sur la disposition à donner à cette section de fabrication soit donc à l'emplacement du matériel. L'auteur touche également au rapport du capital investi dans une fabrication de ce genre.

Page 110

Chaussettes Argyle tricotées à la machine. Dans le passé les chaussettes du modèle Argyle étaient tricotées à la main – mais plus maintenant. Il n'y a que très peu d'usines aux Etats-Unis qui produisent cet article en quantités. Le présent article décrit l'une de ces firmes et sa production sur 44 métiers Banner, confiée à trois tricoteurs et à un contre-maître. Le secret du succès réside dans le fait que chaque ouvrier inspecte lui-même sa production et sépare les chaussettes. La production journalière est de 350 douzaines avec fort peu de second choix.

Page 111

Conseils concernant le tricotage tubulaire. L'article contient des renseignements utiles pour estimer la production à laquelle on peut s'attendre dans le tricotage de qualités déterminées. La production dépend avant tout du diamètre des métiers et du nombre de chutes que l'on confie à l'ouvrier. Certains tricoteurs préfèrent travailler avec un assortiment de métiers ayant des diamètres différents. D'autres par contre obtiennent de meilleurs résultats en surveillant des métiers identiques comme diamètre. La question du groupage des diamètres est un bon moyen de décider du nombre de métiers à confier à chaque ouvrier. Le but est que chaque ouvrier soit à même de produire un poids semblable de tricot.

Page 114

Questions intéressant les tricoteurs de bas diminués. Les tricoteurs de bas produits sur métiers Cotton trouveront dans cet article des renseignements d'un réel intérêt. Le sujet est présenté sous forme de sept questions: Que faites-vous lorsqu'une tête de métier est bombée? Ou sont les tableaux de contrôle de vos métiers? Joignez-vous les bouts? A quels intervalles nettoyez-vous les bacs d'humidifications? Votre système d'inventaire permanent fonctionne-t-il d'une façon sure? Quel est le résultat des conditions générales de travail dans votre departement? Combien des perfectionnements suivants avez-vous déjà appliqués dans votre usine? – bouts de bas (pointes) sans remaillage – fixage de la matière (qui en assurera la permanence, sous le rapport des formes) –cables de chauffe, évitant les dilatations?

Page 118

Appareil transporteur de bonneterie. Un convoyeur pour le traitement final et pour l'emballage de bonneterie est décrit dans cet article. Dix ouvrières travaillent à cette machine et produisent jusqu'à 3200 douzaines en huit heures. L'auteur décrit la tâche assignée à chaque ouvrière et donne aussi des renseignements concernant le fonctionnement de l'appareil.

Stricken des Beines, Hocheinsetzen der Ferse, Fuss- und Zehen-stricken, und Wiedereinstellung der Maschine.

Seite 109

Trikotstricken. Dieser Artikel is fuer jene Fabriksleute bestimmt, die noch nicht im Trikotgeschaeft sind, aber die Hinzufuegung von Trikotware zu ihren gewobenen Fabrikaten in Erwaegung ziehen. Unter anderem befasst sich dieser Artikel mit den Erfordernissen fuer Bodenbelagflaeche, Kauf von Garn auf Kettenbaeumen anstatt selber zu schweifen, Oekonomie der Trikotproduktion, Anzahl der benoetigten Angestellten und je ein ausgezeichneter Abschnitt ist dem Planen und der Ertragsrate der Geldauslage gewidmet.

Seite 110

Maschingestrickte Argyle Socken. Argyle Socken wurden ausschliesslich handgestrickt – aber nicht mehr jetzt. Es arbeiten nur ein paar Fabriken in den Vereinigten Staaten von Amerika mit den neuen Maschinen, aber diese Geschichte erzaehlt, wie eine dieser Fabriken 44 Bannermaschinen mit 3 Strickern und 1 Mechaniker laufen laesst. Das Geheimnis ihres Erfolges liegt in der Tatsache, dass jede Strickerin ihre eigene Arbeit inspiziert und abschneidet. Tageserzeugung der Maschinen ist 350 Dutzend, mit geringer Sekundaware.

Seite 111

Ratschlaege fuer Rundstricken. Dieser Aritkel gibt einige Ratschlaege fuer gute Arbeitsleistung im Rundstricken. Groesstenteils bestimmen Kopfbreite und Anzahl der Zuspeisungen die Maschinenzuweisungen. Manche Stricker ziehen verschiedene Maschinenbreiten vor, waehrend andere ihre groesste Faehigkeit in einer Gruppe gleicher Maschinen finden. Gruppieren von Kopfbreiten ist ein guter Weg, um Maschinenzuweisungen zu vereinfachen. Arbeitslasten sind gewoehnlich so angeordnet, dass jeder Stricker taeglich ein gleiches Gewicht von Fabrikaten erzeugt.

Seite 114

Fragen an Stricker von vollfassionierten Struempfen. Stricker von vollfassionierten Struempfen werden in die, in diesem Artikel angefuehrten, nuetzlichen Methoden interessiert sein. Die Materie wird in der Form von 7 herausfordernden Fragen behandelt: Was macht man mit gekruemmten Haken? Sollen Enden zusammengefuegt werden? Wo sollen die Kontrolltafeln sein? Wie oft soll der Trog gereinigt werden? Gibt es strenge Lagerkontrollen? Wie sind die Arbeitsbedingungen? Wieviele der neuen Errungenschaften werden verwendet – schlupfenlose Zehen, Voreinstellung, Heizkabel?

Seite 118

Foerderband fuer Struempfe. Es wird in diesem Artikel ein Foerderband fuer das Endverfahren und die Verpackung von Rundstruempfen beschrieben. Zehn Maedchen arbeiten am Foerderband und erzeugen bis zu 3200 Dutzend in einem 8 Stunden Tag. Es werden die Pflichten jedes Maedchens, sowie manche Betriebs-Besonderheiten des Foerderbandes angefuehrt.

Seite 119

Strumpferzeuger eroertern die Marktlage. Beinahe 500 Strumpferzeuger trafen sich in einer Zweitagekonferenz im Waldorf-Astoria Hotel in New York, um Mittel und Wege zu besprechen, den gegenwaertig ueberbeschickten Markt auf legalem Wege zu verbessern. Nur freiwillige Zurueckhaltung der Fabriken ist moeglich. Die anwesenden Fabrikanten Stu-

fábricas. Los reunidos presentaron diversas mociones y estudiaron un análisis de métodos individuales de control de costos, habiendo sido urgidos (1) a estudiar más íntimamente sus costos; (2) no vener sin percibir ganancia; y (3) no fabricar artículos en cantidades tan excesivas que se vieran obligados a inundar el mercado.

Página 120

Se Da a Conocer la Continua de Hilar SG-1. La Saco-Lowell Shops ha desarrollado una continua de hilar de nuevo diseño. El uso de anillos reductores de balón permite enrollar unidades hasta de 16 onzas de peso en continuas de 4 pulgadas de ecartamiento. Este paquete grande es hecho por una carrera de vaivén de 11¼ pulgadas de la regla porta anillos. Todos los cojinetes son del tipo de antifricción y sólo requieren lubricación una vez cada seis meses. Un sistema Pneumafil de barrido al vacío, los cojinetes de bolas "New Era" lubricados permanentemente, y un motor enfriado por agua situado debajo completamente de la continua, son las otras características.

Página 125

Empleo de Personas con Defectos Físicos. Una moderna planta de tejeduría y molinaje de Pennsylvania ha tenido por varios años la pauta de emplear personas con incapacidades físicas cada vez que se le ha presentado la oportunidad. La planta ha descubierto que con sólo un pequeño arreglo en los trabajos y en la distribución, una persona imposibilitada puede ocupar un puesto en el personal de producción. Estos empleados han demostrado ser tan buenos y fieles obreros, por su disposición y perseverancia en el trabajo, como los otros empleados considerados como perfectos físicamente.

Página 126

Fibra de Orlón. Debido a que dentro de poco entrará en producción la fibra acrílica Orlón, los textileros se interesarán en sus propiedades y procedimientos de elaboración. Las propiedades de la fibra varían ligeramente de las del filamento, y aparecen tabuladas en este artículo. Su elaboración en hilo y tela puede hacerse a menudo con el equipo convencional a velocidades y ajustes corrientes. La clave del éxito en la elaboración está en reorganizar lo voluminoso de la fibra y en reducir de acuerdo los pesos de elaboración.

Página 130

Estudio de Pieles para Lanzaderas. En la tejeduría de géneros sintéticos de fibras y filamentos es muy importante el uso de pieles para lanzaderas. Muchas salas de cardadura de algodón están utilizando pieles en sus lanzaderas en cantidad limitada. Los costos de pieles son elevados, pero se pueden reducir si se usan pieles más livianas para substituir los grados más pesados. Los grados livianos de pieles pueden ser usados a menudo con buenos resultados si los requisitos de tensión de la trama no son extraordinariamente severos.

Página 135

Reunión de la Asociación de Textileros del Sur. Este artículo hace un resumen de varias de las reuniones de los textileros. Se informa sobre la experiencia actual de las fábricas sobre temas tales como reducción de botones en la apertura, selección y cardado, tolerancias de tela de batan, producción de carda, mejoramientos en la hilatura de gran estiraje, programas de limpieza de encanilladoras, sistemas de transportar almidón, rodillos prensadores

Page 119

La saturation du marché des bas est étudiée par les fabricants. Près de 500 fabricants de bonneterie se rencontrèrent au cours d'un meeting de deux jours à l'Hotel Waldorf-Astoria à New York pour chercher des moyens de remédier à la saturation de leur marché, par des moyens légaux. Le seul moyen possible sembla être une réduction volontaire de la part de chaque usine. Les fabricants présents étudièrent un modèle de calcul de prix de revient. Il fut proposé d'étudier de très près tous les facteurs rentrant dans le prix de revient – de ne pas vendre sans bénéfice et en outre de ne pas surproduire, ce qui conduit inévitablement à des ventes à prix de sacrifice.

Page 120

Présentation du nouveau métier à filer SG-1. La firme Saco-Lowell a créé un nouveau métier à filer. L'emploi d'anneaux anti-ballon permet de produire des bobines allant jusqu'à 16 onces que l'on peut filer sur des métiers d'une jauge de 4 pouces. Une bobine d'une dimension aussi considérable est faite par une traversée du rail de 11¼ pouces. Tous les roulements sont anti-friction et ne doivent être graissés que tous les six mois. Un nettoyage par système Pneumafil, des broches à roulements à billes qui ne demandent pas de graissage et un moteur par refroidissement à l'eau, placé sous le métier sont quelques-unes des caractéristiques de ce nouveau modèle.

Page 125

De l'emploi de personnes handicapées au point de vue physique. Un moulinage et tissage de la Pennsylvanie pratique depuis plusieurs années une politique d'emploi de personnes handicapées au point de vue physique, chaque fois que les circonstances le permettent. Cette firme a constaté en effet que dans presque tous les cas il était possible d'employer une personne de ce genre par une réajustement souvent facile de l'emploi. Elle a constaté en outre qu'un handicapé a souvent une endurance et une ténacité dans son emploi supérieure à celle de bien des ouvriers en possession de toutes leurs facultés physiques.

Page 126

La fibre Orlon. Etant donné qua la production des fibres Orlon va atteindre sous peu le stage de la production industrielle, bien des fabricants s'intéressent actuellement aux propriétés physiques et aux procédés de fabrication de cette fibre. Les propriétés des fibres sont légèrement différentes de celle de la même matière en filaments continus. Nous les renseignons sur le tableau ci-joint. Leur transformation en fils et en tissus peut d'ordinaire s'opérer sur du matériel existant et avec les réglages usuels. La clef du succès toutefois réside en un ajustement approprie du volume de la fibre et en réduisant les quantités et poids dans les proportions nécessaires.

Page 130

Navettes fourrées. La question du fourrage des navettes revêt une importance particulière lorsque l'on tisse des matières synthétiques, soit des fibres, soit du filament continu. Des tissages de coton même emploient des navettes fourrées en quantités limitées. La fourrure coûte cher mais son prix peut être réduit en remplaçant des qualités relativement lourdes que l'on emploie souvent par des qualités plus légères. De telles qualités sont souvent absolument suffisantes, à moins que les tensions de la trame ne présentent des problèmes tout à fait spéciaux.

dierten eine Analyse von individuellen Kontrollmethoden der Kosten und wurden aufgefordert (1) ihre Kosten naeher zu pruefen, (2) nicht ohne Nutzen zu verkaufen und (3) nicht in einem solchen Uebermass zu erzeugen, dass die Ware verschleudert werden muss.

Seite 120

Enthuellung der SG-1 Spinnmaschine. Eine neuartige Spinnmaschine wurde von der Saco-Lowell Maschinenfabrik herausgebracht. Der Gebrauch von Bauschbildungs-verminderten Ringen gestattet Packungen bis zu 16 oz. Gewicht, um auf einer 4" Teilung Spinnmaschine gesponnen zu werden. Alle Lager sind von der reibungslosen Type und benoetigen Schmierung nicht mehr als einmal alle 6 Monate. Ein Pneumafil Vacuum Reinigungssystem, "New Era," staendig schmierende Spindeln mit Kugellager, und ein wassergekuehlter Motor, der sich zur Gaenze unter der Maschine befindet, sind andere Besonderheiten.

Seite 125

Anstellung von koerperlich beeintraechtigten Personen. Eine moderne Seidenspinnerei- und Weberei in Pennsylvania hat es sich seit einigen Jahren zur Aufgabe gemacht, wann immer moeglich, koerperlich behinderte Leute anzustellen. Die Fabrik hat herausgefunden, dass nur mit geringen Aenderunger der Arbeit oder der Anlage, eine koerperlich beeintraechtigte Person gut in die Erzeugungsmannschaft eingefuegt werden kann. Solche Angestellte haben sich als gute und getreue Arbeiter erwiesen, mit einer Beharrlichkeit, die man nicht oft in den sogenannten koerperlich perfekten Menschen findet.

Seite 126

Orlonstapelfaser. Da die Orlon acrylic Faser im Stapelgarn sehr bald in Massen erzeugt werden wird, werden Fabriksleute in ihren Eigenschaften und Verarbeitungsmethoden interessiert sein. Die Stapelfasereigenschaften weichen ein wenig von jenen der anderen ab und sind in diesem Artikel tabuliert. Verarbeitung zu Garn und Gewebe, kann gewoehnlich auf der herkoemmlichen Einrichtung, mit ueblichen Geschwindigkeiten und Einstellungen, geschehen. Der Schluessel zur erfolgreichen Verarbeitung liegt in der Neugestaltung des Umfanges der Faser und entsprechender Herabsetzung des Verarbeitungsgewichtes.

Seite 130

Diskussion ueber Pelzbelag des Webschiffchen. Pelzbelag der Webschiffschen ist wichtig im Weben von Filament- und Kunstfaserfabrikaten. Viele Baumwollwebereien verwenden auch, in begrenztem Maasse, Pelze in ihren Webschiffchen. Pelzkosten sind hoch, aber sie koennen vermindert werden, wenn die Fabriken die schwereren Qualitaeten mit leichterem Pelz ersetzen. Leichte Pelzqualitaeten koennen oftmals mit gutem Erfolg verwendet werden, wenn der Schuss keine ungewoehnliche Spannung erfordert.

Seite 135

Versammlung der Suedlichen Textilvereinigung. Dieser Artikel fasst einige Meetings der Textilfachleute zusammen. Praktische Fabrikserfahrungen werden in Bezug auf Verminderung von Noppen im Oeffnen, Reissen, Krempeln, Toleranz fuer Pickerwickel, Kardenproduktion, Verbesserungen im Langverzugspinnen und Reinigungseinteilung fuer Spuler, Uebertragungssystem fuer Schlichte, synthetische Druckwalzen, im Kettenschaeren und Webereiqualitaet, gegeben.

de sintéticos en el encolado, y calidad en la sala de tejedura.

Página 136

Los Transportadores Aceleran los Procedimientos de Blanqueo. Antiguamente, cada operación de costura de tohallas y servilletas un una fábrica de Georgia era separada de las otras. Por medio de una nueva distribución, el corte, costura y atado de paquetes, así como las otras operaciones de la producción, están agrupadas en pequeñas pero completas unidades de producción que se abastece en un tren en línea recta a un transportador central que conduce tanto al almacén como a la sección de embarque. Se ha reducido la manipulación y el tiempo de tránsito de los artículos en una tercera parte.

Página 139

Corrección de Cinta de Estiraje Defectuosa. Una fábrica investigando las causas de la mala apariencia y de las muchas roturas de la tela en sus géneros acabados, encontró que la mala calidad del estiraje era la responsable directa. Una verificación a fondo fué realizada en todas las condiciones del manuar de estiraje, de los métodos de operación y de la conservación de las máquinas. En el artículo se ofrecen las condiciones tal como se encontraron, y los métodos y cambios hechos que resultaron en mejoramiento de la calidad y de la uniformidad del estiraje.

Página 147

Carretillas Cargadoras de Canillas. Las carretillas especiales diseñadas para uso de los cargadores de canillas en los telares automáticos han permitido un aumento del 50 por ciento en la cantidad de baterías manejadas por cada operario en una fábrica. Sin embargo, las carretillas tienen ciertas limitaciones, y no deben ser usadas donde haya que utilizar más de una clase de canillas, a menos que se tomen medidas para evitar la mezcla de los hilos.

Página 151

Cuidado de Motores de Telar. En el programa de conservación de motores de telar, la primera etapa es la lubricación sistemática de los motores de los telares. Los cojinetes del tipo de estopa son lubricados a intervalos periódicos. Los cojinetes de antifricción requieren grasas especiales y un sistema diferente de lubricación y conservación. Requieren también atención menos frecuente que los del tipo de estopa. Ambos tipos de motores deben ser desmontados, limpiados e inspeccionados periódicamente. Estando el motor desarmado, deben repararse o reponerse los arrollados. Antes de volver a armar el motor y colocarlo en el telar, debe ser lubricado.

Página 157

Conservación de Bombas. Las bombas son aparatos sencillos, pero ninguna fábrica puede trabajar sin ellas. Este artículo ofrece una lista de verificación para la conservación de bombas del tipo duplex. Entre los temas tratados en detalle se encuentran: extremo de agua de la bomba, cámara de vapor, trepidación y embolada. Por ejemplo, si el agua no fluye, la falta puede estar en una línea de succión con salidero o en sus conexiones – o la bomba puede estar seca y necesita ceba.

Page 135

Meeting des industriels textiles du Sud. Cet article contient un résumé de divers meetings de fabricants textiles. Il traite des échanges de vues sur les sujets suivants: diminution des boutons aux opérations de battage et de cardage, tolérance dans le poid des nappes, production de carde, filature à grand étirage, nettoyage des bobinoirs, pompage des produits d'encollage, rouleaux de pression d'encolleuses en matières synthétiques et qualité des tissus au sortir du métier à tisser.

Page 136

L'emploi d'un convoyeur accélère la production. Dans le passé la couture d'essuies et de serviettes constituait, dans cette usine de la Géorgie, une opération tout à fait indépendante. Dans la nouvelle organisation introduite dans ce département la coupe, la couture et le groupage constituent des groupes de production séparés qui s'emboîtent grâce à l'emploi d'un système de convoyeurs que les conduit soit à l'expédition soit au magasin. Il a été possible de réduire d'un tiers le temps pendant lequel la marchandise était en route.

Page 139

Ruban d'étirage défectueux. Il résulte d'une enquête entreprise par une usine pour déterminer la cause de la mauvaise apparence de ses tissus et de leur faible résistance à la traction que la cause résidait dans des rubans d'étirage de qualité insuffisante. Les bancs d'étirage furent donc inspectés de façon sérieuse de même que leur fonctionnement. Les résultats de cette enquête sont rapportés dans cet article qui décrit également les changements qui furent apportés en vue d'obtenir des rubans de qualité uniforme.

Page 147

Chariots spéciaux pour métiers automatiques. L'emploi de chariots spéciaux dont se sert le personnel qui regarnit les batteries de trame des métiers automatiques a permis un accroissement de 50% de métiers entretenus par un ouvrier. Le système a toutefois des limites et ne saurait s'employer là où plus d'une qualité de trame est tissée, à moins que des mesures spéciales ne previennent les erreurs qui pourraient naître de ce fait.

Page 151

Du soin aux moteurs de métiers à tisser. Le graissage des moteurs est le premier élément d'un programme d'entretien de métiers à tisser et de leur commande électrique. Les systèmes de graissage à bourrage demandent à être lubrifiés à intervalles réguliers. Les systèmes anti-friction requièrent un type de graisse différent et une méthode particulière. L'avantage de ce type réside dans les soins moindres qu'il demande. Mais l'un comme l'autre, ils devraient être démontés, nettoyés et inspectés à intervalles réguliers. On profite de ce que le moteur est démonté pour réparer ou remplacer le bobinage. Avant que le moteur ne soit remonté et remis en place, on procédera à sa lubrification.

Page 157

Entretien des pompes. Quoique les pompes soient des machines simples peu d'usines sauraient se passer d'elles. Le présent article constitue un relevés des principales règles d'entretien de pompes du type duplex. Citons parmi les points mentionnés: l'orifice de succion, les coups de bélier, les diverses causes de dérangement. Une des causes du manque de succion peut provenir d'une fuite dans la tuyauterie, à moins que la pompe ne soit à sec dans lequel cas elle devrait être amorcée.

Seite 136

Foerderband beschleunigt das Bleichverfahren. Ehemals war jede Handtuch- und Serviettennaehende Taetigkeit in einer Fabrik in Georgia abgesondert von jeder anderen Manipulation. In der neuen Anordnung sind Schneiden, Buendeln, Knuepfen und andere Erzeugungsphasen in kleine, aber komplete Produktionseinheiten gruppiert, die in einer geraden Linie zu einem Zentralfoerderband fuehren, das entweder zum Aufbewahrungs- oder Versandraum laeuft. Handhabung wurde reduziert und die Zeit der Ware in Transit um ein Drittel verringert.

Seite 139

Fehlerhafter Verzug des Faserbandes korrigiert. Eine Fabrik, die nach den Ursachen des fehlerhaften Ausfalles und der geringen Festigkeit in ihren fertigen Stoffen suchte, fand, dass schlechter Verzug direkt dafuer verantwortlich war. Eine gruendliche Untersuchung wurde an dem Zustand aller Streckmaschinen, sowie Arbeitsmethoden und Maschininstandhaltung gemacht. Befunde werden detailliert wiedergegeben, sowie die angewandten Methoden und Aenderungen angefuehrt, die zur Verbesserung der Qualitaet und Gleichmaessigkeit des Streckens fuehrten.

Seite 147

Fuellmagazin-Karren. Spezialkarren zum Gebrauch als Magazinfueller fuer automatische Webstuehle, haben eine 50% Erhoehung in der Anzahl der von jedem Arbeiter in einer Fabrik behandelnden Magazinen gestattet. Die Karren haben gewisse Beschraenkungen und es sollen, wenn mehr als eine Art von Schussbobbinen verwendet wird, Schritte unternommen werden, um ein Verwechseln des Garnes zu verhindern.

Seite 151

Pflege der Webstuhl-Motore. Als erster Schritt in einem Instandhaltungsprogramm fuer Webstuehle werden die Webstuhlmotore systematisch geschmiert. Gewoehnliche Lager werden in regelmaessigen Abstaenden geoelt. Reibungslose Lager erfordern Spezialfette und ein anderes Schmierungs- und Instandhaltungs-System und benoetigen weniger Aufmerksamkeit als die Abfall-Typ Motore. Beide Arten von Motore sollen periodisch auseinandergenommen, gereinigt und inspiziert werden. Waehrend der Motor auseinandergenommen ist, werden die Wicklungen repariert oder ersetzt. Ehe der Motor zusammengesetzt und in den Webstuhl eingebaut wird, soll er geschmiert werden.

Seite 157

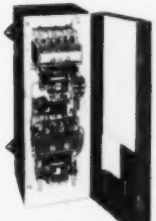
Instandhaltung der Pumpen. Pumpen sind einfach, aber Fabriken koennen doch ohne sie nicht auskommen. Dieser Artikel zeigt ein Kontrollverzeichnis zur Instandhaltung von Duplex-Typ Pumpen. Unter den angefuehrten Einzelheiten sind u.a.: Wasserabflussventil der Pumpe, Dampfkasten, Hammer- und Kolbenschlag. Sollte z.Bsp. das Wasser nicht fliessen, so koennte der Fehler in einer undichten Saugleitung oder deren Verbindungen sein, oder die Pumpe mag trocken sein und braucht Grundierung.

Air Conditioning System of Georgia Tech Textile Building

is equipped with Allen-Bradley Motor Controls

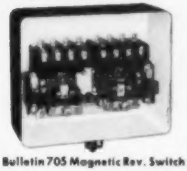
A-B Starters installed in the High Tower Textile Building, Georgia School of Technology.

Typical Allen-Bradley Motor Controls for the Textile Industry



Bulletin 740 Magnetic Resistance Type Starter

Bulletin 713 Combination Starter



Bulletin 705 Magnetic Rev. Switch

Bulletin 800 Standard Duty Push Button

Bulletin 801 Limit Switch

Bulletin 709 Automatic Solenoid Starter

Bulletin 609 Manual Motor Starter

Equip your textile machines with Allen-Bradley motor starters and forget about starter troubles. With Allen-Bradley starters, there is no contact maintenance . . . no trouble . . . no grief.

You never have to file, clean, or dress the double break, silver alloy contacts, which remain in perfect operating condition without maintenance. Allen-Bradley starters have only one moving part . . . no bearings, pins, pivots, hinges, or flexible jumpers to go wrong. The simple mechanism guarantees long, trouble free starter life—even after millions of operations.

If some of your textile machines need velvet smooth starting to reduce thread breakage, specify either Allen-Bradley Bulletin 640 Manual or Bulletin 740 Automatic Resistance Starters. Write Allen-Bradley for the name of the nearest A-B Control Engineer, who will be glad to assist you.

Allen-Bradley Co., 120 W. Greenfield Ave., Milwaukee 4, Wis.

ALLEN-BRADLEY

QUALITY

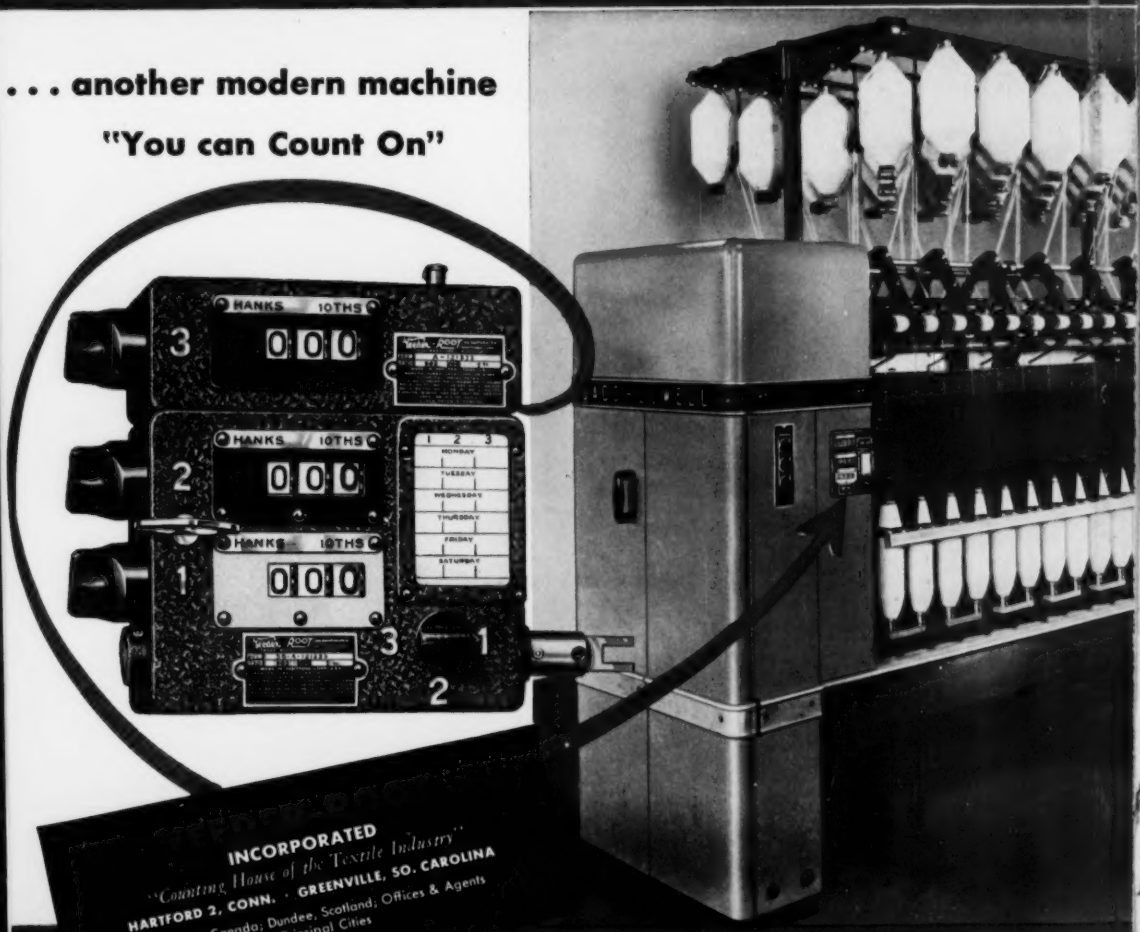
MOTOR CONTROLS FOR TEXTILE MILLS

Veeder-Root Hank Counters

SACO-LOWELL - WALTNEY Spinning Frame

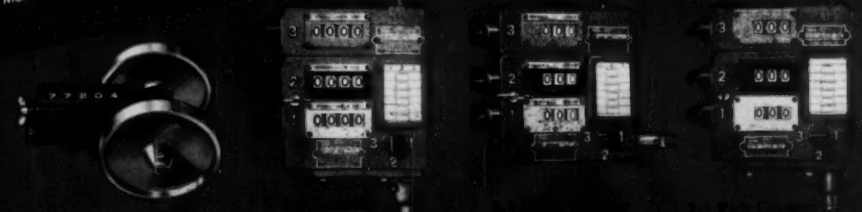
. . . another modern machine

"You can Count On"



INCORPORATED

"Counting House of the Textile Industry"

HARTFORD 2, CONN. · GREENVILLE, SO. CAROLINA

Montreal, Canada; Dundee, Scotland; Offices & Agents in Principal Cities